

VDOİHİ

Bağımlı ve Bir Bağımsız Olasılıklı
Farklı Dizilimsiz Bağımlı Durumlu
Simetrisinin Herhangi İki Durumuna
Bağı Toplam Düzgün Olmayan
Simetrik Olasılık

Cilt 2.3.1.3.4.1.1.9

İsmail YILMAZ

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VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin herhangi iki durumuna bağlı toplam düzgün olmayan simetrik olasılık Cilt 2.3.1.3.4.1.1.9

İsmail YILMAZ

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1. Bağımlı durumlu simetrisinin herhangi iki durumuna bağlı toplam düzgün olmayan simetrik olasılık

Dili: Türkçe + Matematik Mantık



Türkiye Cumhuriyeti Devleti
Kuruluşunun
100.Yılı Anısına



K. Atatürk

Yazar Hakkında

İsmail YILMAZ; Hamzabey Köyü, Yeniçağa, Bolu'da 1973 yılında doğdu. İlkokulu köyünde tamamladıktan sonra, ortaokulu Yeniçağa ortaokulunda tamamladı. Liseyi Ankara Ömer Seyfettin ve Gazi Çiftliği Liselerinde okudu. Lisans eğitimini Çukurova Üniversitesi Fen Edebiyat Fakültesi Fizik bölümünde, yüksek lisans eğitimini Sakarya Üniversitesi Fen Bilimleri Enstitüsü Fizik Anabilim Dalında ve doktora eğitimini Gazi Üniversitesi Eğitim Bilimleri Enstitüsü Fen Bilgisi Eğitimi Anabilim Dalında tamamladı. Fen Bilgisi Eğitiminde; Newton'un hareket yasaları, elektrik ve manyetizmanın prosedürel ve deklaratif bilgi yapılarıyla birlikte matematik mantık yapıları üzerine çalışmalar yapmıştır. Yazarın farklı alanlarda yapmış olduğu çalışmalar arasında ölçme ve değerlendirmeye yönelik çalışmaları da mevcuttur.

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GÜLDÜNYA

Simge ve Kısaltmalar

n : olay sayısı

n : bağımlı olay sayısı

m : bağımsız olay sayısı

l : bağımsız durum sayısı

I : simetrimin bağımsız durum sayısı

II : simetrimin bağımlı durumlarından önce bulunan bağımsız durum sayısı

I : simetrimin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

lk : simetrimin bağımlı durumları arasındaki bağımsız durumların sayısı

k : dağılımın başladığı bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası

l : ilgilenilen bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası

l : simetrimin ilk bağımlı durumunun, bağımlı olasılık farklı dizilimsiz dağılımın son olayı için sırası. Simetrimin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

l_i : simetrimin son bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrimin birinci bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

l_s : simetrimin ilk bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz

dağılımlardaki sırası. Simetrimin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

l_{ik} : simetrimin aranacağı durumdan önce bulunan bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası veya simetrimin iki bağımlı durumu arasında bağımsız durum bulunduğunda, bağımsız durumdan önceki bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası

l_{sa} : simetrimin aranacağı bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrimin aranacağı bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

j : son olaydan/(alt olay) ilk olaya doğru aranılan olayın sırası

j_i : simetrimin son bağımlı durumunun, bağımlı olasılıklı dağılımlarda bulunabileceği olayların, son olaydan itibaren sırası

j_{sa}^i : simetriyi oluşturan bağımlı durumlar arasında simetrimin son bağımlı durumunun bulunduğu olayın, simetrimin son olayından itibaren sırası ($j_{sa}^i = s$)

j_{ik} : simetrimin ikinci olayındaki durumun, gelebileceği olasılık dağılımlardaki olayın sırası (son olaydan ilk olaya doğru) veya simetride, simetrimin aranacağı durumdan önce bulunan bağımlı durumun, bağımlı olasılıklı dağılımlarda bulunabileceği olayların, son olaydan itibaren sırası veya simetrimin iki bağımlı

durum arasında bağımsız durumun bulunduğunda bağımsız durumdan önceki bağımlı durumun bağımlı olasılıklı dağılımlarda bulunabileceği olayların son olaydan itibaren sırası

j_{sa}^{ik} : j_{ik} 'da bulunan durumun simetriyi oluşturan bağımlı durumlar arasında bulunduğu olayın son olaydan itibaren sırası

$j_{x_{ik}}$: simetrinin ikinci olayındaki durumun, olasılık dağılımlarının son olaydan itibaren bulunabileceği olayın sırası

j_s : simetrinin ilk bağımlı durumunun, bağımlı olasılıklı dağılımlarda bulunabileceği olayların, son olaydan itibaren sırası

j_{sa}^s : simetriyi oluşturan bağımlı durumlar arasında simetrinin ilk bağımlı durumunun bulunduğu olayın, simetrinin son olayından itibaren sırası ($j_{sa}^s = 1$)

j_{sa} : simetriyi oluşturan bağımlı durumlar arasında simetrinin aranacağı durumun bulunduğu olayın, simetrinin son olayından itibaren sırası

j^{sa} : j_{sa} 'da bulunan durumun bağımlı olasılıklı dağılımda bulunduğu olayın son olaydan itibaren sırası

D : bağımlı durum sayısı

D_i : olayın durum sayısı

s : simetrinin bağımlı durum sayısı

s : simetrik durum sayısı. Simetrinin bağımlı ve bağımsız durum sayısı

m : olasılık

M : olasılık dağılım sayısı

U : uyum eşitliği

u : uyum derecesi

s_i : olasılık dağılımı

$f_z S_{j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_z S_{j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_z S_{j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_z^0 S_{j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_z^0 S_{j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_z^0 S_{j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_Z S_{j,sa}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı simetrik olasılık

$f_Z S_{j,sa,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı simetrik olasılık

$f_Z S_{j,sa,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı simetrik olasılık

$f_Z S_{j_s,j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_Z S_{j_s,j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre simetrik olasılık

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$f_{Z,0} S_{j_s,j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre simetrik olasılık

$f_{Z,0} S_{j_s,j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre simetrik olasılık

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${}^0 f_Z S_{j_s,j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre simetrik olasılık

${}^0 f_Z S_{j_s,j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre simetrik olasılık

${}^0 f_Z S_{j_s,j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrisinin ilk ve son durumunun bulunabileceği olaylara göre simetrik olasılık

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$f_Z S_{j_s,j,sa,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu

bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre simetrik olasılık

$f_{z,0}S_{j_s,j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre simetrik olasılık

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$f_{z,0}S_{j_s,j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı

durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre simetrik olasılık

$fz,0S_{js,jik,j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre simetrik olasılık

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fzS_{js,jik,j^{sa},j_i} : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık

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$fzS_{j_i}^{DSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu

simetrisinin son durumunun bulunabileceği olaylara göre toplam düzgün simetrik olasılık

$fzS_{j_i, 0}^{DSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre toplam düzgün simetrik olasılık

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durumunun bulunabileceği olaylara göre toplam düzgün simetrik olasılık

$fzS_{js,jik,j_i,0}^{DSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre toplam düzgün simetrik olasılık

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olaylara göre toplam düzgün simetrik olasılık

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$fzS_{j_i}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

$fzS_{j_i,0}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız

simetrinin son durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

$fzS_{j_i,D}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

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$fzS_{j^{sa}}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin durumuna bağlı toplam düzgün olmayan simetrik olasılık

$fzS_{j^{sa},0}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin durumuna bağlı toplam düzgün olmayan simetrik olasılık

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$f_{z,0} S_{j_s, j_s^{sa}}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı

durumlu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

$f_{z,0}S_{j_s,j^{sa},0}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

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bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

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simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

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olaylara göre toplam düzgün olmayan simetrik olasılık

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$fz S_{j_s,j_{ik},j^{sa},D}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı toplam düzgün olmayan simetrik olasılık

$fz,0 S_{j_s,j_{ik},j^{sa}}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı toplam düzgün olmayan simetrik olasılık

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$fz S_{j_s,j_{ik},j_i}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı toplam düzgün olmayan simetrik olasılık

$fz \overset{DOSD}{\Rightarrow}_{j_s, j_{ik}, j_i, 0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı toplam düzgün olmayan simetrik olasılık

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$0 \overset{DOSD}{\Rightarrow}_{j_s, j_{ik}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı toplam düzgün olmayan simetrik olasılık

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$fz, 0 \overset{DOSD}{\Rightarrow}_{j_s, j_{ik}, j^{sa}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı

durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

$fz,0S_{\Rightarrow j_s, j_{ik}, j^{sa}, j_{i,0}}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

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$fz,0S_{\Rightarrow j_s, j_{ik}, j^{sa}, j_{i,D}}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

herhangi bir ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

$fz,0S_{\Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_{i,i}}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

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$fz,0S_{\Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_{i,D}}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz

bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

${}^0S_{fz \Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

${}^0S_{fz \Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i, 0}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

${}^0S_{fz \Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i, D}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

E2

BAĞIMLI ve BİR BAĞIMSIZ OLASILIKLI FARKLI DİZİLİMSİZ DAĞILIMLAR

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar

- Simetrik Olasılık
- Toplam Düzgün Simetrik Olasılık
- Toplam Düzgün Olmayan Simetrik Olasılık
- İlk Simetrik Olasılık
- İlk Düzgün Simetrik Olasılık
- İlk Düzgün Olmayan Simetrik Olasılık
- Tek Kalan Simetrik Olasılık
- Tek Kalan Düzgün Simetrik Olasılık
- Tek Kalan Düzgün Olmayan Simetrik Olasılık
- Kalan Simetrik Olasılık
- Kalan Düzgün Simetrik Olasılık
- Kalan Düzgün Olmayan Simetrik Olasılık

büyüğe sıralanmasıyla elde edilebilen kurallı tablolar kullanılmaktadır. Farklı dizilimsiz dağılımlarda durumların küçükten-büyüğe sıralama için verilen eşitliklerde kullanılan durum sayısının düzenlenmesiyle, büyükten-küçüğe sıralama durumlarının eşitlikleri elde edilebilir.

Farklı dizilimsiz dağılımlar, dağılımın ilk durumuyla başlayan (bunun yerine farklı dizilimsiz dağılımlarda simetrisinin ilk durumuyla başlayan dağılımlar), dağılımın ilk durumu hariçinde dağılımın herhangi bir durumuyla başlayan dağılımlar (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan bir durumla başlayan dağılımlar) ve dağılımın ilk durumu hariç olmak üzere dağılımının başladığı farklı ikinci durumla başlayıp simetrisinin ilk durumuyla başlayan dağılımların sonuna kadar olan dağılımlarda (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan diğer durumlarla başlayan dağılımlar) simetrik, düzgün simetrik, düzgün olmayan simetrik v.d. incelenir. Bağımlı dağılımlardaki incelenen başlıklar, bağımlı ve bir bağımsız olasılıklı dağılımlarda, bağımsız durumla ve bağımlı durumla başlayan dağılımlar olarak da incelenir.

Bağımlı dağılım ve bir bağımsız olasılıklı durumla oluşturulabilen dağılımlara ve bağımlı olasılıklı dağılımların kendi olay sayısından (bağımlı olay sayısı) büyük olmasına (bağımsız olay sayısı) dağılımla bağımlı ve bir bağımsız olasılıklı dağılımlar elde edilir. Bağımlı dağılım farklı dizilimsiz dağılımlarda incelendiğinde, bu dağılımlara bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlar denir. Bağımlı ve bir bağımsız olasılıklı dağılımlar; bağımlı dağılımlara, bağımsız durumlar ilk durumdan dağıtılmaya başlanarak tabloları elde edilir. Bu bölümde verilen eşitlikler, bu yöntemle elde edilen kurallı tablolara göre verilmektedir. Farklı dizilimsiz dağılımlarda durumların küçükten-

Bağımlı dağılımlar; a) olasılık dağılımlardaki simetrik, (toplam) düzgün simetrik ve (toplam) düzgün olmayan simetrik b) ilk simetrik, ilk düzgün simetrik ve ilk düzgün olmayan simetrik c) tek kalan simetrik, tek kalan düzgün simetrik ve tek kalan düzgün olmayan simetrik ve d) kalan simetrik, kalan düzgün simetrik ve kalan düzgün olmayan simetrik olasılıklar olarak incelendiğinden, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda bu başlıklarla incelenmekle birlikte, bu simetrik olasılıkların bağımsız durumla başlayan ve bağımlı durumlarıyla başlayan dağılımlara göre de tanımlanma eşitlikleri verilmektedir.

Farklı dizilimsiz dağılımlarda simetrinin durumlarının olasılık dağılımındaki sıralama simetrik olasılıkları etkilediğinden, bu bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımları da etkiler. Bu nedenle bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda, simetrinin durumlarının bulunabileceği olaylara göre simetrik olasılık eşitlikleri, simetrinin durumlarının olasılık dağılımındaki sıralamalarına göre ayrı ayrı verilecektir. Bu eşitliklerin elde edilmesinde bağımlı olasılıklı farklı dizilimsiz dağılımlarda simetrinin durumların bulunabileceği olaylara göre çıkarılan eşitlikler kullanılmaktadır. Bu eşitlikler, bir bağımlı ve bir bağımsız olasılıklı dağılımlar için VDO ve CHN'de çıkarılan eşitliklerle birleştirilerek, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımların yeni eşitlikleri elde edilecektir. Eşitlikleri adlandırılmasında bağımlı olasılıklı farklı dizilimsiz dağılımlarda kullanılan adlandırmalar kullanılacaktır. Bu adların altına simetrinin bağımlı ve bağımsız durumlarına göre ve dağılımın bağımsız veya bağımlı durumla başlamasına göre “Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı/bağımsız-bağımlı/bağımlı-bir bağımsız/bağımlı-bağımsız/bağımsız-bağımsız durumlu/bağımsız/bağımlı” kelimeleri getirilerek, simetrinin bağımlı durumlarında bulunabileceği olaylara göre bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz adları elde edilecektir. Simetriden seçilen durumların bulunabileceği olaylara göre simetrik, düzgün simetrik veya düzgün olmayan simetrik olasılık için birden fazla kullanılması durumunda gerekmedikçe yeni tanımlama yapılmayacaktır.

Simetrinin durumlarının bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırasına göre verilen eşitliklerdeki toplam ve sınır değerleri, simetrinin küçükten-büyükçe sıralanan dağılımlarına göre verildiğinden bu dağılımlarda da aynı sıralama kullanılmaya devam edilecektir. Bağımlı olasılıklı farklı dizilimsiz dağılımlarda olduğu gibi bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda da aynı eşitliklerde simetrinin durum sayıları düzenlenerek büyükten-küçükçe sıralanan dağılımlar için de simetrik olasılık eşitlikleri elde edilecektir.

Bu şekilde bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda, simetrinin herhangi bir durumuna bağlı toplam düzgün olmayan simetrik olasılığın eşitlikleri verilmektedir.

SİMETRİDEN SEÇİLEN İKİ DURUMA GÖRE TOPLAM DÜZGÜN OLMAYAN SİMETRİK OLASILIK

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}+1}^{n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - j_{ik} - 1)!}{(n_i - n - 1)! \cdot (n_i - j_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - k + 1)!}{(l_{ik} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^n \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\begin{aligned}
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left(\sum_{k=1}^{l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-k)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=k+\mathbf{n}-D}^{-k+1} \\
& \sum_{n_i=\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1)}^{(n_i-j_{ik}-1)} \sum_{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2}^{n_{ik}+j_{ik}-j_{sa}^{ik}} \\
& \frac{(n_i - n_{ik})!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s - \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i - \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{n-D}^{n+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \quad \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \quad \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \quad \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \quad \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \quad \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \quad \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}}^{l_{ik}+1} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{l_s+j_{sa}-k}^{(\quad)} j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s-k-1)!}{(l_s+j_{sa}-l_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot$$

$$\frac{(D-\mathbf{n}-1)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \geq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s, \{j_{sa}^{ik-1}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right. \\
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}^{ik}-l_{sa}-k}^{(l_{sa}-k+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left. \frac{(D + j_{sa}^{ik} - n - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} \right) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right)
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-l_{sa}, j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)}$$

$$\sum_{n_{ik}=l_i+n+j_{sa}^{ik}-D-l_{sa}}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)} \sum_{n_{is}=n+l_k+j_{sa}^{ik}-j_{ik}}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{n_{ik}=l_i+n+j_{sa}^{ik}-D-l_{sa}}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - n - I)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\geq n < n \wedge l_s > D - s + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_s - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_s+\mathbf{n}+j_{sa}-D-1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} - j_{sa} - 1)! \cdot (\mathbf{n} - j_{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{D+l_s-\mathbf{n}-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+j_{sa}^{ik}-k)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-j_{sa}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{ik} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-I)!}{(n_i-\mathbf{n}-I)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j^s < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^{ik}\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z, \mathbf{s}}^{SD, \mathbf{s}} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-1)!}^{(n_i+j_{ik}+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{(n_{ik}+j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(n + j_{sa} - j_{sa}^{ik} - k - 1)!}{(n + j_{sa} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n - l_i)!}{(D + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa}^{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n - l = \mathbb{k} \geq 1 \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq n - s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_i - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n_i - j_{sa} - s)!}{(n_i + j^{sa} - \mathbf{n} - 1)! \cdot (n_i - j_{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n_{sa}} \sum_{(j_{ik}-j_{ik}+\mathbf{n}-D)}^{(l_s+j_{sa}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (j_{sa} - j^{sa})!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{is}=\mathbf{n}+\mathbb{k}}^{n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D > \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-1}^{l_i+j_{sa}-k-s+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_i - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-l_{sa}-s-1)}^{(l_{ik}-k+1)} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_{sa})}$$

$$\sum_{(n=\mathbf{n}+\mathbb{k})}^{(n_i-j_{sa})} \sum_{(n_{ik}=n_i+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{sa})} \sum_{(n_{ik}=n_i+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{sa})}$$

$$\sum_{(n_{ik}=n_i+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{sa})} \sum_{(n_{ik}=n_i+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{sa})} \sum_{(n_{ik}=n_i+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{sa})}$$

$$\frac{(l_s + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(l_s + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)! \cdot (\mathbf{n} + j_{sa} + j_{sa}^{ik} - j_{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} - l_s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + l_{sa} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + l_{sa} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \bigg) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_s+j_{sa}-k}^{l_s+j_{sa}-k} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \end{aligned}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_{ik}-k-j_{sa}^{ik}+1)} \sum_{(n_{is}=l_i+\mathbf{n}+j_{sa}-D-k+1)}^{(l_{ik}-k-j_{sa}^{ik}+1)}$$

$$\sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(j_{sa}+j_{sa}^{ik}-j_{ik}-1)} (n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})$$

$$\sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(j_{sa}+j_{sa}^{ik}-j_{ik}-1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(j_{sa}+j_{sa}^{ik}-j_{ik}-1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} - l_i = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{\substack{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1) \\ (j_{ik}=l_s+n+j_{sa}^{ik}-1)}} \sum_{\substack{l_{sa}=l_{sa}+1 \\ j_{sa}=l_{sa}+1}} \sum_{\substack{(n_i-j_{ik}-\mathbb{k}_1+1) \\ (n_i=n+\mathbb{k}-j_{ik}+1)}} \sum_{\substack{j_{ik}=j_{sa}-\mathbb{k}_2 \\ n_{sa}=n-j_{sa}+1}} \frac{(n_i - j_{ik} - 1)!}{(j_{ik} - 1)! \cdot (n_i - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{\substack{(l_s+j_{sa}^{ik}-k) \\ (j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}} \sum_{\substack{l_{sa}=l_{sa}-k+1 \\ j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}} \sum_{\substack{n_i=n+\mathbb{k} \\ (n_i-j_{ik}-\mathbb{k}_1+1)}} \sum_{\substack{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}} \sum_{\substack{n_{sa}=n-j_{sa}+1}} \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)!}{(n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j^{sa} - s)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - j_{sa} - j^{sa} + s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}} \sum_{(j_{ik}=l_{ik}+j_{sa}^{ik}-D-j^{sa})}^{(l_{ik}-1)} \sum_{(n_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n_{ik}-1)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa})$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z^s}^{QSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k} j^{sa} = l_i + \mathbf{n} + j_{sa} - D - s$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik})! \cdot (j_{ik} + j_{sa}^{ik} - 1)!}$$

$$\frac{(D - \mathbf{n} - 1)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D > \mathbf{n} \leq n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{sa}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+j_{sa}^{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_{ik}+\mathbf{n}-j_{sa}-\mathbb{k}_2)} \frac{(n_{ik}-n_{ik}-1)!}{(j_{sa}-2)! \cdot (n_{ik}-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{ik}-1)!}{(j_{sa}-1)! \cdot (n_{ik}+j_{ik}-j_{sa})!} \cdot \frac{(n_{ik}-1)!}{(n_{sa}-n_{sa}-n_{ik}-1)! \cdot (n-j_{sa})!} \cdot \frac{(n_{ik}-k-j_{sa}^{ik})!}{(l_{ik}+j_{sa}^{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-\mathbf{l}_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-\mathbf{l}_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} \cdot \sum_{k=1}^{\mathbf{n}-\mathbf{l}_i} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_{sa}+1)} \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{k=1}^{D-\mathbf{n}} f_z S_{j_{ik}, j_{sa}}^{DOS} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{j_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i + n - l)! \cdot (n_{ik} + j_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(n_i - k - 1)!}{(l_s + j_{sa} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D - n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} > j^{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa})) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_i + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - 1)!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - j_{sa} - l_{sa} - s)!}{(n_i + j_{sa} - \mathbf{n} - l_{sa} - 1)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{ik} - s)!} \cdot \\
& \sum_{k=1}^{l_s + s - j_{sa}^{ik} - 1} \sum_{(j_{ik}=\mathbf{l}_i + \mathbf{n} + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{ik} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\sum_{k=1}^{D-n+1} \sum_{j_{ik}, j_{sa}}^{DOS_{fz}} (j_{sa}^{ik} - j_{sa}) + j_{sa} - k - j_{sa}^{ik} + 1$$

$$\sum_{j_{ik}=l_i+n-D}^{n} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{n_{ik}+j_{ik}-j_{sa}-k_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - 1)!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=0}^{n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_i+l_{sa}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - j_{ik} - 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} + j_{sa} - n - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik})!}{(j_{ik} + j_{sa} - j^{sa} - 1)!} \cdot \frac{(l_{ik} - j_{sa})!}{(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$s \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{\mathbf{n}+1} \sum_{(n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_{k2})}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-l_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n-l)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{\substack{l_{sa}=\mathbf{n}+j_{sa}^{ik}-j_{sa}-1 \\ l_{sa}=\mathbf{n}-D}}^{l_{sa}+\mathbf{n}+j_{sa}^{ik}-j_{sa}-1} \sum_{\substack{n_i=\mathbf{n}+\mathbb{K} \\ n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}}^{n_i=\mathbf{n}+j_{sa}^{ik}-j_{sa}-1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{\substack{l_{ik}=\mathbf{n}+j_{sa}^{ik}-D-j_{sa} \\ j_{sa}^{ik}=\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}}^{l_{ik}-k+1} \sum_{\substack{l_{sa}=\mathbf{n}+j_{sa}^{ik}-D-j_{sa} \\ j_{sa}^{ik}=\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}}^{l_{sa}-k+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{\substack{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1 \\ n_{sa}=\mathbf{n}-j^{sa}+1}}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - n_{sa} - j_{ik} - 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_i - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{n+l_s+s-n} \sum_{(j_{ik}=l_i+l_s+j_{sa}^{ik}-D-j^{sa})} \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n \leq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-j_{sa}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{j_{sa}^{ik}-1} \\ \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - k)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{l_{sa} - l^{l+1}} \sum_{j_{ik}=j_{sa}}^{l_{sa} - l^{l+1}} \sum_{j_{sa}=j_{sa}}^{l_{sa} - l^{l+1}} \frac{(n_i - j_{ik} - l_{sa} - k)!}{(j_{ik} - j_{sa}^{ik} - l_{sa} - k)!} \cdot$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_{sa}-j_{ik}+1}^{n_i-j_{ik}-l_{sa}-k} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{sa}-k} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - l_{sa} - k)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{l^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_s+j_{sa}-k)} \sum_{j_{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n - j_{sa} - j_{ik} - s)!} \cdot \\
& \sum_{k=l_i}^{()} \sum_{(n_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{ik}-\mathbb{k}_1+1, n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - l_i)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - j_{ik} -$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$$

$$D \geq n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i \} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right. \\ \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\cdot)} \sum_{j_{sa}=j_{sa}} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + l_{ik} - j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{l_{ik}} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(n_i-j_{ik}-1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-l_{ik_2})} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{n_{ik}=n+l_{ik}-j_{ik}+1}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n+l_{sa}-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-l_{ik_2})} \\
& \frac{(n_i - n_{ik})!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{ik}-1} \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}-j_{sa}}^{(n_i-j_{ik}-1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_{is}+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{ik_1}}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{ik_2})} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-l_{ik_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\cdot)} \sum_{j^{sa}=j_{sa}^{ik}}^{(\cdot)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=\mathbf{n}-j_{sa}-\mathbb{k}_2}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - s - \mathbf{n} - l_i)!}{(\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - 1 \wedge$$

$$D \geq \mathbf{n} < n, l = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_s^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^{ik}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: j_{sa}^{ik} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j^{sa}=j_{sa}^{ik}+1}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - n - s)!} + \\
& \sum_{k=1}^n \sum_{j_{ik}=n+l_{k2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{j_{sa}=j_{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=n+l_{k1}}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_{sa} + j_{sa}^{ik} - k} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1} \frac{(n_i - j_{ik} - l_{sa} - 1)!}{(n_{ik} - j_{ik} - l_{sa} - 1)!} \cdot \frac{n_{ik} + j_{ik} - j^{sa} - l_{sa}}{n_{sa} - j^{sa} + 1} \\
& \sum_{n_i = n + l_{sa}}^n \sum_{(n_{ik} = n_{sa} - j_{ik} + 1)} \sum_{n_{sa} = n - j^{sa} + 1} \frac{(n_i - n_{ik} - 1)!}{(n_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_{sa} - l + 1} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - l + 1} \sum_{j^{sa} = j_{sa} + 1}^{l_{sa} - l + 1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - l_{ik})!} \cdot \\
& \frac{(D - j^{sa} + n - l_{sa} - s)!}{(D + j^{sa} + s - n - l_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{l-1} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} = \sum_{k=1}^{i^{l-1} - k + 1} \sum_{(j_{ik}=j_{sa}^{ik}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{\infty} \sum_{i=1}^{\infty} \sum_{j=1}^{\infty} \sum_{s=1}^{\infty} \sum_{a=1}^{\infty} \sum_{l=1}^{\infty} \sum_{m=1}^{\infty} \sum_{n=1}^{\infty} \sum_{p=1}^{\infty} \sum_{q=1}^{\infty} \sum_{r=1}^{\infty} \sum_{t=1}^{\infty} \sum_{u=1}^{\infty} \sum_{v=1}^{\infty} \sum_{w=1}^{\infty} \sum_{x=1}^{\infty} \sum_{y=1}^{\infty} \sum_{z=1}^{\infty} \sum_{\substack{n_i=n+l \\ n_{ik}=n+l_2-j_{ik}+1 \\ n_{sa}=n-j_{sa}+1}} \sum_{\substack{(n_i-j_{ik}-l_1+1) \\ (n_{ik}+j_{ik}-j_{sa}-l_2) \\ (n_i-n_{ik}-1)! \\ (j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)! \\ (n_{ik}-n_{sa}-1)! \\ (j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})! \\ (n_{sa}-1)! \\ (n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})! \\ (D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-s)!}} \left(\sum_{k=1}^{i-l-j_{ik}-k+1} \sum_{j=1}^{l_{sa}-k+1} \sum_{\substack{n_i=n+l \\ n_{ik}=n+l_2-j_{ik}+1 \\ n_{sa}=n-j_{sa}+1}} \sum_{\substack{(n_i-j_{ik}-l_1+1) \\ (n_{ik}+j_{ik}-j_{sa}-l_2) \\ (n_i-n_{ik}-1)! \\ (j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)! \\ (n_{ik}-n_{sa}-1)! \\ (j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})! \\ (n_{sa}-1)! \\ (n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})! \\ (l_{ik}-k-j_{sa}^{ik})! \\ (l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)! \\ (l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})! \\ (j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})! \\ (D+j_{sa}-l_{sa}-s)! \\ (D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!}} \right) +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{\binom{D}{l}} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-l+1} j^{sa} = j_{sa}+1 \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n - 1)!}{(n + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \left(\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{k-k+1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{D}{l}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{l_i} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{l_i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{\binom{n}{s}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{\binom{n}{s}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \right) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-n_{ik}=j_{ik}+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k2})} \\
& \frac{(n_i - n_{ik})!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k2})} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-l_{k1}}^{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k2})}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{\sum_{i=1}^n (j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}^{sa} = j_{sa}^{sa}}^{()} \sum_{j_{sa}^{sa} = j_{sa}^{sa}}^{()} \\
& \sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{(n_{ik} = n_i - j_{ik} - \mathbb{K}_1 + 1)}^{()} \sum_{n_{sa} = j_{sa}^{sa} - \mathbb{K}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(n_i - \mathbf{n} - \mathbb{K})! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - \mathbf{n} - \mathbf{n} - l_i)!}{(D - \mathbf{n} - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_s \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}$$

$$D \geq \mathbf{n} < n \wedge \mathbb{K} = \mathbb{K}_1 \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbf{n} + \mathbb{K} \wedge$$

$$\mathbb{K}_2 \geq 0 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D + l_{ik} + j_{sa} - \mathbf{n} - l_{sa} - j_{sa}^{ik} + 1} \right)$$

$$\sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa})}^{()} \sum_{j^{sa} = l_{sa} + \mathbf{n} - D}^{l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \right) \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{j_{sa}=\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{(l_{ik}-k+1)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{l_{sa}-k+1} j_{sa}=\mathbf{l}_{sa}+\mathbf{n}-D \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - l_{ik} + 1} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{j^{sa} = l_{sa} + n - D - s}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{ik} = n + k - j_{ik} + 1)}^{(n_i - j_{ik} - k_1 + 1)} \sum_{(n_{is} = n + k + j_{sa}^{ik} - j_{ik} - k_2)}^{(n_{ik} + j_{sa}^{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - k - 1)!}{(n_i - k - 1)! \cdot (n_i - k - j_{ik} + 1)!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D + j^{sa} - n - l_i} \sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa})} \sum_{j^{sa} = l_i + n + j_{sa} - D - s}^{l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k + j_{sa}^{ik} - j_{ik})}^{(n_i - j_{sa} + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_i - j_{sa} + 1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} (j^{sa}+j_{sa}^{ik}-j_{sa}-1) \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{l_s+j_{sa}-k} \sum_{j^{sa}=l_{sa}+n-D} \right. \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_s+l_{sa}-k)} \sum_{(n_i=n+l_k)}^{(n_i+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{ik}-l_{ik_1})}^{(n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{ik_2})}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - j_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - l_{sa} \leq l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$s \geq n - l_{sa} \wedge l = l_{sa} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{sa}, j_{sa}^{ik}, l_{sa}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + l_{sa} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(j_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_i-j_{ik}-l_{ik}+1)}^{(n_i-j_{ik}-l_{ik}+1)} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{ik_2})}^{n_{ik}+j_{ik}-j^{sa}-l_{ik_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{ik_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{ik_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{ik_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{i=1}^{l_{sa}-l+1} \sum_{j_{ik}=j_{sa}}^{n_{ik}-j_{ik}-\mathbb{K}_2} \sum_{n_{ik}=n_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-I)!}{(n_i-\mathbf{n}-I)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (n_i+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \geq l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\},$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik} j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right.$$

$$\sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-l_{sa}-k+1)} \sum_{j^{sa}=l_{sa}+n-1}^{l_{sa}-k+1} \right)$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(j_{ik}-j_{sa}^{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{i l} \sum_{j_{ik}=j_{sa}^{ik}-k}^{l_{ik}+j_{sa}^{ik}-k} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}+j_{sa}^{ik}-k+1} \frac{(n_i - j_{ik} - l_{k1} + 1)!}{(n_i - n_{ik} - n + l_{k2} - j_{ik} + 1)!} \cdot \frac{n_{ik} + j_{ik} - j^{sa} - l_{k2}}{n_{sa} = n - j^{sa} + 1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{i l} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}-i l+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-i l+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \left(\frac{(D + l_s - s)!}{(D + j^{sa} + s - \mathbf{n} - l_{sa} - j_{sa}^{ik} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{l_i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}-j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-j_{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(n-j_{ik}-k_1+1)} \sum_{(j_{sa}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(n-j_{sa}-k+1)} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=i}^l \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(n-j_{ik}-k_1+1)} \sum_{j_{sa}=j_{sa}}^{l_{sa}-l+1} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{l=1}^{i^{l-1} (l_{sa} + j_{sa}^{ik} - k - j_{sa}^{ik})} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \frac{(n_i - j_{ik} - \mathbb{K}_1 + 1)}{\sum_{n_i = n + \mathbb{K}} \sum_{(n_{ik} = n + \mathbb{K}_2 - j_{ik} + 1)} \sum_{n_{sa} = n - j_{sa} + 1}} \frac{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2}{(n_i - n_{ik} - 1)!} \cdot \frac{(n_i - n_{ik} - j_{ik} + 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=i^l}^{(l_{sa} + j_{sa}^{ik} - i^{l-1} - j_{sa} + 1)} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \sum_{n_i = n + \mathbb{K}}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{ik} = n + \mathbb{K}_2 - j_{ik} + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - s - \mathbf{n} - l_{sa})!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (s - j_{sa}^{ik})!} \cdot \\
& \sum_{k=1}^{l-1} \frac{(l_s + j_{sa}^{ik} - k)!}{\sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}}} \cdot \\
& \sum_{j_{sa}^{ik}=n+l_k}^{n+l_k} \sum_{j_{sa}^{ik}=n+l_k+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \cdot \\
& \sum_{j_{sa}^{ik}=n+l_k+j_{sa}^{ik}-l_{k1}}^{(n_i-j_s+1)} \sum_{j_{sa}^{ik}=n+l_k+j_{sa}^{ik}-l_{k2}}^{(n_i-j_s+1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}}^{(n_i-j_s+1)} \cdot \\
& \sum_{n_i=n+l_k}^n \sum_{j_{sa}^{ik}=n+l_k+j_{sa}^{ik}-l_{k1}+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n+l_k+j_{sa}^{ik}-j_{sa}-l_{k2}}^{(n_i-j_s+1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^s\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{(j_{sa}=j_{sa}^{ik}+2)}^{l_{sa}-i^{l+1}} \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^{l+1}} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{sa} + j_{sa} - k} \sum_{j_{sa}^{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{l_{sa} + j_{sa} - k} \sum_{j_{sa}^{ik} = j_{sa} + 1}^{l_{sa} + j_{sa} - k} \\
& \sum_{n_i = n + k}^n \sum_{n_{is} = n + k + j_{sa}^{ik} - j_{ik}}^{(n_i - j_s + 1)} \\
& \sum_{n_{is} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - k_1}^{(n_{is} - j_s + 1)} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2}^{(n_{sa} - j_s + 1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_s} \sum_{j_{ik} = j_{sa}^{ik}}^{(l_s - k)} \sum_{j^{sa} = j_{sa}}^{(l_s - k)} \\
& \sum_{n_i = n + k}^n \sum_{n_{ik} = n_i - j_{ik} - k_1 + 1}^{(n_i - j_s + 1)} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2}^{(n_{sa} - j_s + 1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - k)!}{(n_i - n - k)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^s\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k} = \mathbb{k}_1 \vee \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=0}^{l_{ik}-l_{i+1}} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}-l_{i+1}-j_{ik}} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-l_{i+1}-j_{ik}}$$

$$\sum_{n_i=n+l_{i+1}}^n \sum_{n_{ik}=n+l_{i+1}-j_{ik}}^{(n_i-j_{ik}-l_{i+1})} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{i+1}}$$

$$\frac{(n_i - n_{ik})!}{(n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l_{i+1} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_{i+1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{l_{i+1}-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-l_{i+1}-j_{ik}}$$

$$\sum_{n_i=n+l_{i+1}}^n \sum_{n_{is}=n+l_{i+1}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_{is}+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{i+1}}^{(n_{is}-n_{ik})} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{i+1}}^{(n_{sa}-n_{ik})}$$

$$\begin{aligned}
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{(\cdot)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(\cdot)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(\cdot)} \sum_{n_{sa}=\mathbf{n}-j_{ik}-j^{sa}-\mathbb{k}_2}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_i)!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - j^{sa} - s \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - j_{sa} > \\
& D \geq \mathbf{n} < n \wedge l_{ik} - \mathbb{k} \geq 0 \wedge \\
& j_{sa} \leq l_{ik} - 1 \wedge j_{sa}^{ik} = l_{ik} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge \\
& s \geq \mathbf{s} = s + \mathbb{k}_1 + \mathbb{k}_2 \wedge \\
& \mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow
\end{aligned}$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{n_i-j_{ik}-l_{ik}+1} \sum_{j_{sa}=j_{sa}^{ik}+1}^{n_{sa}-j_{sa}^{ik}+1} \frac{(n_i - j_{ik} - l_{ik} + 1)!}{(j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{n_{ik} + j_{ik} - j^{sa} - k_2}{n_{sa} - j^{sa} + 1} \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{ik}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_i-j_{ik}-l_{ik}+1)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \\
& \left(\sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \left. \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \right)
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{\mathbf{l}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k-j_{sa}^{ik})} \sum_{l_{sa}=j_{sa}^{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{sa}^{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{\mathbf{l}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-\mathbf{l}-j_{sa}^{ik}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(n_i + j_{sa} - \mathbf{n} - s)!}{(n_i + j^{sa} - \mathbf{n} - s)! \cdot (n_i - j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(l_{ik} - i^l)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa} - i^l + 1} \sum_{j^{sa}=l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+2}^{l_{sa}-i^l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}-j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + s - \mathbf{n} - \mathbf{l}_i - j_{sa} - \mathbf{l}_i - j_{sa} - \mathbf{n})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + s - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right) \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i l - 1} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{(l_{ik} - k + 1)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1}^{l_{sa} - k + 1} \right. \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=i l}^{(l_{ik} - i l + 1)} \sum_{(j_{ik} = j_{sa}^{ik})}^{l_{sa} - i l + 1} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1}^{l_{sa} - i l + 1} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-k} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-k} \frac{(n_{is}-n-k)!}{(n_{is}-n-k+j_{sa}^{ik}-j_{ik})!} \cdot \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{ik}-k_1}^{l_{sa}+j_{sa}^{ik}-k} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{l_{sa}+j_{sa}^{ik}-k} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-k} \sum_{j_{sa}=j_{sa}}^{l_{sa}+j_{sa}^{ik}-k} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - k)!}{(n_i - n - k)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!} \cdot
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}^{sa}}^{j_{sa}^{ik}, D} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-j_{sa}^{ik}-j_{sa}^{ik}+1} \sum_{\substack{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}) \\ j_{sa}^{sa}=l_{sa}+\mathbf{n}-D}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{\substack{n_i=\mathbf{n}+\mathbb{k} \\ (n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}}^n \sum_{\substack{(n_i-j_{ik}-\mathbb{k}_1+1)}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{\substack{n_{sa}=\mathbf{n}-j^{sa}+1}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} (j_{ik}=j_{sa}^{ik}+1) \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} l_{ik}+j_{sa}-k-j_{sa}^{ik}+1 \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1) l_{ik}+j_{sa}-i^{l-1}j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{l_{ik} - i l + 1} \sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}-i l-j_{sa}^{ik}+2} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}-i l-j_{sa}^{ik}+2} \\
& \sum_{n_i=n+l_{sa}-j_{sa}-j_{ik}+1}^n \sum_{n_{ik}=n+l_{sa}-j_{sa}-j_{ik}+1}^{n_{ik}-j_{sa}-l_{sa}+1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}-j_{sa}-l_{sa}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l_{sa}-j_{sa}-j_{ik}+1}^n \sum_{n_{is}=n+l_{sa}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (l_i+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\},$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik} j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right.$$

$$\sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-l_{sa}-k+1)} \sum_{j^{sa}=l_{sa}+n-j_{sa}^{ik}+1}^{(l_{sa}-k+1)} \right. \\
& \quad \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(j_{ik}-l_{k_1})} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \quad \frac{(n_i - l_{k_1} - 1)!}{(j_{ik} - l_{k_1} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \quad \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \quad \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \quad \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \quad \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \quad \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \quad \sum_{n_i=n+l_{k_1}}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}_i - j_{ik} + j_{sa} - \mathbf{n} - l_{sa} - j_{sa}^{ik} - 2}^{l_{ik} - j_{ik} - k + 1} \sum_{j_{ik}=j_{sa}^{ik}-2}^{l_{ik}-k+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}+k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}_i}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{l_{ik}+j_{sa}-\mathbf{l}_i-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(n_i + j_{sa} - \mathbf{n} - s)!}{(n_i + j^{sa} - \mathbf{n} - s)! \cdot (n_i - j_{sa} - j^{sa} - s)!} + \\
& \sum_{i^l=j_{ik}-l_{ik}+\mathbf{n}-D}^{(l_{ik}-i^l+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+2}^{l_{sa}-i^l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-i+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{is}=n_{ik}+j_{ik}-j_{sa}^{ik})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - s - j_{sa}^{ik} - l)!}{(n_i - l)! \cdot (n - j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - s)!}{(j^{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} \leq l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1, j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} - s)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} -$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l)} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{\substack{(\cdot) \\ n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j_{ik} - s)!} \cdot \\
& \sum_{k=\mathbb{k}_1}^{\substack{(\cdot) \\ l_i}} \sum_{\substack{(\cdot) \\ n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1+1}} \sum_{\substack{(\cdot) \\ n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{\substack{(\cdot) \\ n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1+1}} \sum_{\substack{(\cdot) \\ n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - j_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} - l_i \leq D + j_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \geq 4 \wedge \{j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik} j^{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - 1)!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j^{sa} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{sa}-k+1}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - l_i - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i + j_{sa} - s > l_i \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^{ik} - 1\} \wedge$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k},$$

$$z: z = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=0}^{l_{ik}-1} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}^{ik}-j_{ik}}^{j_{sa}^{ik}-j_{ik}+1}$$

$$\sum_{n_i=n_{ik}+j_{sa}^{ik}-j_{ik}}^n \sum_{(n_{ik}=n_{ik}+j_{ik}+1)} \sum_{(n_{sa}=n_{sa}+j_{sa}+1)}^{n_{ik}+j_{sa}^{ik}-j_{ik}+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}^{ik}-j_{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n_{ik}+j_{sa}^{ik}-j_{ik}}^n \sum_{(n_{is}=n_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_{sa}+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{j^{sa}=j_{sa}^{ik}-j_{ik}}^{(n_i-j_{sa}+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\cdot)} \sum_{j^{sa}=j_{sa}^{ik}}^{(\cdot)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=\mathbf{n}-j_{sa}-\mathbb{k}_2}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{1}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n, l = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^{sa}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbf{n} + \mathbb{k} \wedge$$

$$\mathbb{k}_2: j_{sa}^{ik} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j^{sa}=j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{n_i - j_{ik} - l_{sa} + 1} \sum_{j_{sa}^{ik}=j_{sa}}^{n_i - j_{ik} - l_{sa} + 1} \sum_{j_{sa}=j_{sa}}^{n_i - j_{ik} - l_{sa} + 1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{sa}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$_{j_{ik}, j_{sa}}^{OSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - j_{ik} - 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} + j_{sa} - n - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(n_i-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=0}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j^{sa})!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$j_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{\binom{D}{l}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+l}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} + j_{sa} - n - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{n_i=n+l}^{D+l_s+s-l_i} \sum_{(l_{ik}=l_i-1)}^{(l_{ik}-1)} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{\binom{D}{l}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{l=1}^{iI-1} \frac{(l_{sa} + j_{sa}^{ik} - k - j_{sa}^{ik})!}{(j_{ik} - j_{sa}^{ik} + 1)!} \sum_{j_{sa}^{ik} = j_{sa} - j_{sa}^{ik}}^{j_{sa}^{ik}} \sum_{n_i = n + \mathbb{k}}^n \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa}^{ik})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{ik} - s)!} + \\ & \sum_{k=1}^i \sum_{j_{ik} = j_{sa}^{ik}}^{()} \sum_{j_{sa}^{ik} = j_{sa}}^{()} \sum_{n_i = n + \mathbb{k}}^n \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)}$$

$$(j_{ik}=l_i+n+j_{sa}^{ik}-D-s) \cdot j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}$$

$$\sum_{n_i=n+l_k}^{(n_i+l_k)} \sum_{(j_{ik}=n+l_k+j_{sa}^{ik}-j_{ik})}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{k1}}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k1})} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}$$

$$\frac{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_{ik} - n_{sa} - 1)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n+1) \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n+1) \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-\mathbf{l}_{ik}-s}^{\mathbf{l}_{ik}+j_{sa}-j_{sa}^{ik}+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-k-j_{sa}^{ik}+2}^{\mathbf{l}_i+j_{sa}-k-s+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{n-l_{sa}-j_{sa}^{ik}-l_{sa}-1} \sum_{l=0}^{n-l_{sa}-j_{sa}^{ik}-l_{sa}-1} \sum_{s=0}^{n-l_{sa}-j_{sa}^{ik}-l_{sa}-1} \frac{(n-l_{sa}-j_{sa}^{ik}-l_{sa}-s)!}{(n-l_{sa}-j_{sa}^{ik}-l_{sa}-s)!} \cdot$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n-l_k-j_{ik}+1}^{n-l_k-j_{ik}} \sum_{n_{sa}=n-j^{sa}+1}^{n-l_k-j_{ik}-j^{sa}-l_{sa}-j_{sa}} \frac{(n_i - n_{ik} - 1)!}{(n_{ik} - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(n-l_{sa}-j_{sa}^{ik}-l_{sa}-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - I - k)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1)$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D + j_{sa} - \mathbf{n} - l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^{ik} - j_{sa}^s, j_{sa}^i\} \wedge$$

$$s \leq 4 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \frac{(l_{ik} - k - 1)!}{(j_{ik} - l + n + j_{sa}^{ik} - D - s)!} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=0}^{\binom{D-l_i}{l_i}} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_i+j_{sa}-l_i} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_i - 1)!}{(n_i + j_{sa} - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_s + j_{sa} - j_{ik} - 1)!}{(l_s + j_{sa} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{k=0}^{l_i+j_{sa}-\mathbf{n}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{\binom{D-l_i}{l_i}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1} (j_{sa} + j_{sa}^{ik} - j_{sa})} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{l_s + j_{sa} - k} \sum_{l_i + j_{sa} - D - s}^{l_s + j_{sa} - k} \\ \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{ik} = n_{ik} - \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_2 + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=1}^{i^{l-1} (l_s + j_{sa}^{ik} - k)} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{l_i + j_{sa} - k - s + 1} \sum_{j_{sa} = l_s + j_{sa} - k + 1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{\binom{l_i+j_{sa}-i^{l-s}+1}{2}} \sum_{l=0}^{\binom{l_i+j_{sa}-i^{l-s}+1}{2}} \sum_{j_{sa}^{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-j_{sa})!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-j_{sa})!} \cdot \\
& \frac{(l_s-k-\mathbb{k}_1)!}{(l_s+j_{sa}^{sa}-j_{ik}-\mathbb{k}_1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n-l)!}{(D+j_{sa}^s+s-n-l-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{ik} \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n \wedge$$

$$D \geq n < n \wedge l_s + \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{sa} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{sa} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$s \cdot \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq n \wedge s = s +$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_{zS}^{DOSD}_{j_{ik}, j_{sa}} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=l_i)}^{(l_s+j_{sa}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-s+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^l-s+1}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} - j_{sa}^{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - l_{sa} + s)!} \cdot$$

$$\sum_{l_i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+n_{ik}^{ik}-D-s)}^{(l_s+j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((\mathbf{n} - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik} j_{sa}}^{SD} = & \sum_{k=1}^{i l-1} \sum_{(j_{ik} j_{sa}^{ik}+1)}^{j_{sa}^{ik}+j_{sa}-j_{sa}^{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=j_{sa}+1} \\ & \sum_{i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{j_{ik}-\mathbb{k}_1+1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_s) \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n < n) \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_i - 1)!}{(n_i + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s + j_{sa}^{ik} - j_{ik} - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - j^{sa})!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(l_{sa}-i)^{l+1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(l_{sa}-i)^{l+1}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{\infty} \sum_{i=1}^{(\cdot)} \sum_{j_{ik}=j_{sa}^{ik}} j_{sa}^{sa}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2 - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_i \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$I \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)} (j^{sa} + j_{sa}^{ik} - j_{sa}) l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1 \sum_{j^{sa}=l_{sa}+n-D}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=0}^{l_i} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n - 1)!}{(n + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_s + j_{sa} - 1)!}{(l_s + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{k=0}^{l_s+s-n} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} \sum_{k=1}^{\mathbf{l}_{sa} - j_{sa} - D - j_{sa} - 1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{\mathbf{l}_{sa}-k+1} \sum_{j_{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - n_{sa} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - n_{sa} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(n_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^l+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} - l_{ik})! \cdot (j_{sa}^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{ik})}^{(n_i-\mathbb{k}+1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2)}^{(\quad)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2)}^{(\quad)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(n - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{sa}^{sa} - j_{sa}^{ik} - k - 1)!}{(j_{sa}^{sa} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{sa}^{sa} - l_i)!}{(D + j_{sa}^{sa} + \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa}^{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa}^{sa} - j_{sa}^{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa}^{sa} + j_{sa}^{ik} - j_{sa}^{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} - l_{ik} \leq D - l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^i - 1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_{sa})!}{(D+j_{sa}+s-n-l_{sa}-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq n + l_s + j_{sa} - n \wedge$$

$$D \geq n < n \wedge l_s + \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq l_s - 1 \wedge j_{sa}^{ik} = l_s - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq l_s = s + \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \frac{(n_i - j_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{n_{ik} + j_{ik} - j^{sa} - k_2}{n_{sa} - j^{sa} + 1} \cdot \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-I)!}{(n_i-\mathbf{n}-I)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (l_i+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} + 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\},$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{(l_i + j_{sa}^{ik} - l - s + 1)} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \\
& \sum_{n_i = n + k}^n \sum_{(n_{ik} = n + k - j_{ik} + 1)}^{(n_i - j_{ik} - k_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - k_2)}^{(n_{sa} + j_{ik} - j_{sa} - k_2 + 1)} \\
& \frac{(n_i - j_{ik} - k - 1)!}{(n_i - n - l)! \cdot (n_i - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - j_{sa} - k_2 - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} - \\
& \sum_{k=1}^{D + j_{sa} + s - n - l_i} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - k_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa})$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbb{K} + \mathbb{K} \wedge$$

$$\mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{i^l} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-j_{sa}^{sa}-j_{sa}^{ik}-l_i)! \cdot (\mathbf{n}+j_{sa}-j_{sa}^{sa}-s)!} \cdot$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + j_{sa}^{sa} + j_{sa}^{ik} - \mathbf{n} - 1)) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l_i \leq D - \mathbf{n} \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \mathbb{k}_1, j_{sa}^k, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge \\
& D + s - \mathbf{n} < l_i \leq D + l_{sa} - s - \mathbf{n} - j_{sa}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge \\
& D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge
\end{aligned}$$

$$s \geq 4 \wedge \mathbf{s} = \mathbf{s} + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1} \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{\binom{D+l_s+s-n-l_i}{l_i}} \sum_{j_{ik}=l_i}^{\binom{D+l_s+s-n-l_i}{l_i}} \sum_{j_{sa}=l_i+n-D}^{\binom{D+l_s+s-n-l_i}{l_i}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=j_{ik}+1}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik})!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{\binom{D+l_s+s-n-l_i}{l_i}} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{\binom{D+l_s+s-n-l_i}{l_i}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{D+l_s+s-n-l_i}{l_i}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s =$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^{ik} - 1\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k}.$$

$$\mathbb{k}_2: z = 1, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \frac{(l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1)}{(j_{ik} = j_{sa}^{ik} + 1)} \frac{l_{sa} - k + 1}{j_{sa} = l_{sa} + n - D} \sum_{n_i = n + \mathbb{k}}^n \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)}{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)} \frac{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2}{n_{sa} = n - j_{sa} + 1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{i l-1} \frac{(j_{sa}^{ik} - k)!}{(l_{sa} + j_{sa}^{ik} - k - j_{sa})!} \sum_{j_{sa}^{ik} = l_{sa} + \mathbf{n} + j^{sa} - D - j_{sa}}^{l_{sa} - k + 1} \frac{(n_i - j_{ik} - \mathbb{k}_2 - 1)!}{(n_{ik} + j_{ik} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + j_{sa}^{ik} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_2 - 1)!} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i l}^{()} \sum_{(j_{ik} = j_{sa}^{ik})}^{()} \sum_{j^{sa} = l_{sa} + \mathbf{n} - D}^{l_{sa} - i l + 1}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+n_{ik}^{ik}-D-s)}^{(l_s+j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((\mathbf{n} - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{sa}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = 1 + \mathbb{k} \wedge$$

$$\mathbb{k}_2: \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_{ik}} \sum_{j_{ik}=l_{ik}-k+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-j_{ik}+j_{sa}-k-j_{sa}^{ik}+2} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{n_{ik}=n+l_{ik}-n+l_{k2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^n \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-i)l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i)l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i)l - j_{sa}^{ik}}{(l_{ik} - j_{ik} - i)l - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$j_{sa} \in \{j_{sa}^i, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{ik} - l + 1} \sum_{j_{ik} = l_{ik} + n - D}^{l_{sa} - l + 1} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^n \sum_{n_{ik} = n + k}^{(n_i - j_{ik} - k_1 + 1)} \sum_{n_{sa} = n_{ik} + j_{sa} - k_2}^{(n_{ik} + j_{sa} - j^{sa} - k_2)}$$

$$\frac{(n_i - j_{ik} - k - 1)!}{(n_i - n - l)! \cdot (n_i - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + l_s + s - n - l_i} \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{(l_s + j_{sa}^{ik} - k)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^n \sum_{n_{is} = n + k + j_{sa}^{ik} - j_{ik}}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOS} = \sum_{k=1}^{l_i} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{(j_{sa}^{ik} - j_{sa})} \sum_{j_{sa} = l_i + \mathbf{n} + j_{sa} - D - s}^{l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1} \\ \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D)}^{l_i+j_{sa}-i^{l-s}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z^{DOSD} S_{j_{ik}, j^{sa}} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_{ik} - l + 1)} \sum_{(j_{ik} = l_{ik} + n - D)}^{l_{ik} + j_{sa} - l - s + 1} \sum_{j^{sa} = l_{ik} + j_{sa} - D - s}^{j_{sa} - l - s + 1}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{ik} = n + \mathbb{K} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2 + 1}$$

$$\frac{(n_i - j_{ik} - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_i - j_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{sa} - j_{sa} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + l_s + j_{sa} - n - l_{sa}} \sum_{(j_{ik} = l_{ik} + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{K}_1}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_s+n-D}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + l_{sa} - j^{sa} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=k)}^{n-k+1} \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-\mathbb{k}_1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n+j_{sa}^{ik}-j_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - j_{ik} - \mathbb{k}_1)!}{(j_{ik} - \mathbb{k}_2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - j_{sa} - \mathbb{k}_2)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{is}=n+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 =$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right.$$

$$\sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - n_{ik} - j_{sa} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+n-1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_{ik}=n+l_{k_2}+j_{ik}+1}^n \sum_{n_{is}=n+l_{k_2}+j_{ik}+1}^{j_{ik}-1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}-j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_{k_2}}^n \sum_{(n_{is}=n+l_{k_2}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa}^l \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^1, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^s\} \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k} = \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{lk}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}+1} \sum_{(j_{ik}=\mathbf{n}+n-D)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{j^{sa}=l_{sa}+n-D}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \right)
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k - j_{sa}^{ik})!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=n_i-j_{sa}-j_{ik})}^{(n_i-j_{sa}+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1-j_{sa}-j_{ik}}^{(\quad)} \sum_{n_{ik}=j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{sa}^{ik} + j_{sa} - j_{ik} - s - j_{sa}^{ik} - 1)!}{(n - \mathbf{n} - l)! \cdot (j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa} - j^{sa} - k - 1)!}{(j_{ik} + j_{sa} - j^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + l_s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} - 1 \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} j^{sa} = j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_{ik}-\mathbb{k}_1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{sa}=n-j^{sa}}^{(n_{sa}=n-j^{sa}+1)} \\ \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \\ \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \\ \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\ \left. \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{lk}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s - 1)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=l_i+n-l_{ik}-D-s}^{(l_i+j_{sa}^{ik}-k)} \sum_{j_{sa}^{ik}=n+l_{ik}-j_{sa}^{ik}}^{(n_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k1})}^{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k1})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}$$

$$\frac{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_s+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}, n_{sa}=\mathbf{n}+j_{sa}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(j_{sa}-j_{ik}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-j_{sa})!} \cdot \frac{(n_{sa}-j_{sa}-\mathbf{n}-1)!}{(n_{sa}-j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \frac{(l_s-j_{sa}-k-j_{sa}^{ik})!}{(l_s-j_{sa}-k-j_{sa}^{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} \cdot \sum_{k=1}^{l_s+\mathbf{n}-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & f z S_{j_{ik}, j_{sa}}^{DOS} \sum_{i=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+l_{sa}^{ik}-D-1)}^{l_s+j_{sa}^{ik}-k} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{i=n+\mathbb{k}}^{(n_i-n_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}=n-j_{sa}+1} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \end{aligned}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - k - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - l_i)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{ik} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i + j_{sa} - s = l_i \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge s = s - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}. \end{aligned}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k} \frac{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}.$$

$$\sum_{n_i=n+l_k} \sum_{(n_{ik}=n+l_k+j_{sa}^{lk}-j_{ik})} \frac{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}.$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{lk}-j_{sa}^{lk}-l_{k_1}} \sum_{(n_{ik}=n_{is}+j_{sa}^{lk}-j_{sa}^{lk}-l_{k_1})} \frac{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}.$$

$$\frac{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{lk} - D - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D \geq n < n \wedge l_s = D - n - 1 \wedge$$

$$j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{ik} + 1 \leq j_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+j_{sa}^{ik}-k-s+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} + j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(j_{ik} - n_{sa} - j^{sa} - 1)!}{(l_{ik} - j_{ik} - \mathbf{n} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n_i - \mathbf{n} - 1)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z \mathcal{S}_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{(l_s+l_{sa}+j_{sa}^{ik}-j_{sa})} \\ & \sum_{(n_i=n+\mathbb{k}_1)}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-n_{sa}-j_{sa})} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=l_s+j_{sa}-k+1)}^{(l_i+j_{sa}-k-s+1)} \\ & \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa}^{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{D + j_{sa} - \mathbf{n} - l_{sa}} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}^{ik}=l_i + \mathbf{n} + j_{sa} - D - s}^{l_{ik} + j_{sa}^{ik} + 1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+l_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+j_{sa}-j_{sa}^{ik}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{ik}-s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(l_{ik}-k+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D)}^{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{(n_{is}=n+l_s+j_{sa}-j_{sa}^{ik}-j_{sa}^{ik})}^{(n_{is}=n+l_s+j_{sa}-j_{sa}^{ik}-j_{sa}^{ik})} \sum_{(n_{is}=n+l_s+j_{sa}-j_{sa}^{ik}-j_{sa}^{ik})}^{(n_{is}=n+l_s+j_{sa}-j_{sa}^{ik}-j_{sa}^{ik})}$$

$$\sum_{(n_{is}=n+l_s+j_{sa}-j_{sa}^{ik}-j_{sa}^{ik})}^{(n_{is}=n+l_s+j_{sa}-j_{sa}^{ik}-j_{sa}^{ik})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \bigg) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-l_s)} \sum_{j_{sa}=l_{sa}+j_{sa}^{ik}-k}^{l_s+l_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_1-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(j_{sa}+j_{sa}^{ik}-l_{sa}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_{ik}-n_{sa}-\mathbb{k}_1-1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{sa}^{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}^{ik}-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j^{sa} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-j_{sa}} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}^{ik}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(D > \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{sa}}^{I,SD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-D-j_{sa}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}=l_{sa}+n-1} \frac{\sum_{n_i=0}^n \sum_{n_{ik}=0}^{(n_i-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - l_{sa} - j_{sa}^{ik})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(n + j_{sa} - \mathbf{n} - s)!}{(n + j^{sa} - \mathbf{n} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{l_s=1}^{D+l_s+\mathbf{n}-l_i} \sum_{(l_{ik}=\mathbf{n}-1)}^{(l_{ik}-1)} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-D-s)}^{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{s,j_{sa}} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{\binom{()}{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{\binom{(n_i-j_s+1)}{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{\binom{()}{(n_{ik}+j_{ik}-j_{sa}=\mathbf{n}+\mathbb{k}_2)}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s + j_{sa}^{ik} - l)!}{(n_i + \mathbf{n} - l)! \cdot (n_{ik} + j_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + j_{sa} - \mathbf{n} - l_i - j_{sa}^{ik})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee
\end{aligned}$$

$$\begin{aligned}
& (D < \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-l_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-j_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-l)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}_1+j_{sa}-j_{ik})}^{(n_i+l_i+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{j^{sa}=n_{ik}+j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa} - j_{sa}^{ik} - k - 1)!}{(j_{ik} + j_{sa} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa})) \wedge
\end{aligned}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{n} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{i=1}^{D+l_s+s-\mathbf{l}_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j^{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{\mathbf{l}_i+j_{sa}-k-s+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - \mathbb{k}_1 - 1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} + j_{sa} - \mathbf{n} - 1)!}{(j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(\mathbf{l}_{ik} - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(\mathbf{l}_{sa} + j_{sa}^{ik})! (\mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+\mathbf{n}-\mathbf{n}-\mathbf{l}_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(\mathbf{l}_s - k - 1)!}{(\mathbf{l}_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_{ik}, j_{sa}}^{DO} = \sum_{k=1}^{D-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ & \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}}$$

$$\frac{(n_i - n_{ik} - l_{k1} - 1)!}{(j_{ik} - l_{k1} - 1)! \cdot (n_i - n_{ik} - j_{ik} - l_{k1} + 1)!}.$$

$$\frac{(n_{sa} - l_{sa} - 1)!}{(j^{sa} - l_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k} j^{sa}=l_i+n+j_{sa}-D-s$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i+l_k-j_{ik})}^{(n_i+l_k+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{s2}}^{()} \sum_{(n_{ik}+j_{sa}-l_{s2})}^{()} \frac{(n_i + j_{sa} + j_{sa}^{ik} - j_{sa} - s - j_{sa}^{ik} - 1)!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(n - n - l)!}{(n - n - l)!} \cdot \frac{(n + j_{sa} - j^{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge j_{ik}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$fz S_{j_{ik}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}-k+\mathbf{n}-D)}^{\mathbf{n}+j_{sa}^{ik}-j_{sa}-1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_{sa}-k+1} \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-\mathbb{K}_2)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{D-n+1} \sum_{(l_{ik}=k+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{l_{sa}-k+1} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_i + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_{k_1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa}^{ik})!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - l_{sa} - s)! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} - \\
& \sum_{l_i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa}^{ik} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_t \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & f_z S_{j_{ik}, j_{sa}}^{DOSL} \sum_{i=1}^{l_{ik}-j_{sa}^{ik}+j_{sa}-j_{sa}} \sum_{j_{ik}=j_{sa}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^{n_i-j_{sa}+\mathbb{K}_1+1} \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{sa}+j_{sa}-\mathbf{n}+1} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l_{sa} - j_{sa}^{ik})!}{(l_{ik} + j_{ik} - n_{sa} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \binom{l-1}{k} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{sa} - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right.$$

$$\sum_{k=1}^{i^l} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) \\
& \left(\sum_{k=1}^{i^{l-1}} (j^{sa} + j_{sa}^{ik} - j_{sa})! \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{sa}+2}^{(j_{sa}-j_{sa}^{ik}+1)} \right. \\
& \left. \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \right. \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j_{sa}=j_{sa}+1}^{i^{l+1}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(n_i - n - 1)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - 1)! \cdot (n + j_{ik} - j_{sa} - s)!} \\
& \sum_{k=1}^n \sum_{(j_{ik} = j_{sa}^{lk})} \sum_{j_{sa} = j_{sa}} \\
& \sum_{n_i = n + \mathbb{k}} \sum_{(n_{is} = n_i - j_{sa} - \mathbb{k}_1 + 1)}^{(\quad)} \sum_{n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq n - n + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \right.$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - j_{sa}^{lk})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{lk} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}^{lk})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \Bigg) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{lk})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}}^{()} \sum_{j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - j_{sa}^{lk})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - 1 = l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^i < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge \mathbf{s} = j_{sa} - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{\binom{n}{n_{sa}}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{n_{sa}} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-l_{k2}} \\
& \frac{(n_i - n_{ik} - l_{k1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - l_{k1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \right)
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{ik}-1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \cdot \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \cdot \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}^{ik}}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n-j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - n - n - l_i)!}{(D - n - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - 1 \wedge$$

$$D \geq n < n - l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_2: n - j_{sa}^{ik} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{()} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} + \\
& \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \right. \\
& \left. \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right.
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{i=0}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}-i^{l+1}} \sum_{j_{sa}=1}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_{ik}-j_{ik}-\mathbb{k}_1}^{n_i-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_{ik} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - l)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_{is} - j_{sa} - s)!} \cdot \\
& \sum_{k=i}^n \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{sa} + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{sa} \leq D - l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D > \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s \geq 5, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i \} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right. \\
 & \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - n - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right)
 \end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(n - l_{sa} - j^{sa} - s + 1)} \sum_{l=1}^{(j_{ik} - j_{sa}^{ik} - 1)} \sum_{j_{sa}^{ik}=l_{sa}+n-j^{sa}-k}^{(j_{ik} - j_{sa}^{ik} - 1)} \\
& \sum_{n_i=n+l_{sa}-j_{sa}^{ik}-j_{sa}-k+1}^n \sum_{n_{ik}=n+l_{sa}-j_{sa}^{ik}-j_{sa}-k+1}^{(j_{ik} - j_{sa}^{ik} - 1)} \sum_{n_{sa}=n-j^{sa}+1}^{(j_{ik} - j_{sa}^{ik} - 1)} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - k_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(n - l_{sa} - j^{sa} - s + 1)} \sum_{j_{sa}^{ik}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_{sa}-j_{sa}^{ik}-j_{sa}-k+1}^n \sum_{(n_{is}=n+l_{sa}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-k_1}^{(n - l_{sa} - j^{sa} - s + 1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(n_i-j_s+1)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - l_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right. \\ & \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \right). \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}+j_{sa}-k} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-l_{sa}-k+1} \sum_{j_{sa}=l_{sa}+\mathbf{n}-j_{ik}-j_{sa}^{ik}}^{j_{sa}^{ik}-l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_i-j_{ik}-\mathbb{k}_1+1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - j_{sa})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}-\mathbf{l}+1} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - n_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - a)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} \cdot$$

$$\sum_{i=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{j_{ik}=j^{sa}+j_{ik}-j_{sa}} \sum_{k=0}^{l_s+j_{sa}-k} \binom{l_s+j_{sa}-k}{j_{ik}-j_{sa}-D-s}$$

$$\sum_{i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{j=n+\mathbb{k}}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}$$

$$\sum_{k=0}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \sum_{l=0}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{ik}-k+1)} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right. \\ \left. \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \right. \\ \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}-l_{sa}+n+j_{sa}^{ik}-j_{sa})!} \frac{l_{sa}-k+1}{j^{sa}-l_{sa}+j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_1}^n \sum_{n_{ik}=n_{i_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{sa}^{ik}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - l_{k_1})! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{ik}-j_{sa}^{ik})!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{ik}-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-l_{ik})! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - s > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq l_s + l_{ik} + j_{sa} - j_{sa}^{ik} - s \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s \cdot \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq \mathbb{k}_2 \wedge s = s + \mathbb{k}_2$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{n+j_{sa}^{ik}-j_{sa}-1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right) \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=0}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-l+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l+1} \frac{(n_i - j_{ik} - l_{k_1} + 1)!}{(j_{ik} - n_i - l_{k_1} + 1)!} \frac{(n_{ik} + j_{sa} - j^{sa} - l_{k_2})!}{(n_{ik} + j_{sa} - j^{sa} - l_{k_2} - 1)!} \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - n_i - l_{k_1} - 1)!} \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j^{sa} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=1}^{D+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-l+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_{zS} S_{j_{ik}}^{n,D} &= \sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1} \\ &\sum_{i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=1}^l \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-l+1} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l + j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s + j_{sa} - s - j_{sa}^{ik})!}{(l_s + j_{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}_2-j_{sa}^{ik}-j_{sa})}^{(j_{ik}=\mathbf{n}+\mathbb{k}_2-j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=\mathbf{n}+j_{sa}^{ik}-j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_2+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_2+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{()} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}_2-j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=\mathbf{n}+j_{sa}^{ik}-j_{sa}+1}^{()} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_2+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=i^l}^{(l_{sa}+j_{sa}^{ik}-i^l-j_{sa}+1)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - \mathbf{n} - \mathbb{k}_2)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^l - 1)!}{(l_{ik} - j_{ik} - i^l - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{l=1}^{()} \sum_{j_{ik}=j_{sa}^{lk}} j_{sa}^{sa}$$

$$\sum_{n_i=n+l}^n \sum_{(n_{ik}=n_i-j_{ik}-l_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - n - l - 1)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - s \wedge l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = l > 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, l_1, j_{sa}^{l_1}, \dots, j_{sa}^{l_2}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = l + l \wedge$$

$$l = l_1 + l_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{()} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}+j_{sa}^{lk}-j_{sa}} l_{ik}+j_{sa}-k-j_{sa}^{lk}+1$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^l \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-i^{l+1})} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+l}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l-1} - 1)!}{(l_{ik} - j_{ik} - i^{l-1} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - 1)!}{(j_{ik} + l_{k_1} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{lk})}^{()} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - s \wedge l_i \leq D + s - \mathbf{n}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, \mathbb{k}_1, j_{sa}^i, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(i^l - i^{l+1})} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa} - i^{l+1}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa} - i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l-k-1)!}{(l+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (n-j_{sa}-j^{sa}-s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-\mathbb{k})! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 0 \wedge j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa}^{ik} + j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right.$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - j_{sa} - n - l_{sa} - s)!}{(D - j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}}^{l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=i^l}^{(j^{sa} + j_{sa}^{ik} - j_{sa} - 1)} \sum_{(j_{ik} = j_{sa}^{ik})}^{l_{ik} + j_{sa} - i^l - j_{sa}^{ik} + 1} \sum_{j_{sa} = j_{sa}^{ik} - 1}^{\Delta}$$

$$\sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_{ik} - 1)} \sum_{n_{ik} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{(l_{ik} - i^l + 1)} \sum_{(j_{ik} = j_{sa}^{ik})}^{l_{sa} - i^l + 1} \sum_{j_{sa} = l_{ik} + j_{sa} - i^l - j_{sa}^{ik} + 2}$$

$$\sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{\Delta} \sum_{j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}}^{l_s + j_{sa} - k} \sum_{j_{sa} + 1}^{(n_i - j_s + 1)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_{is} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{\Delta} \sum_{j_{ik} = j_{sa}^{ik}}^{(n_i - j_s + 1)} \sum_{j^{sa} = j_{sa}}^{(n_i - j_s + 1)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{(n_i - j_s + 1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{j_{sa}^{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{n-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n-j_{ik}-k-1)} \right. \\ \left. \sum_{n=k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n-j_{ik}-k-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \right. \\ \left. \frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right. \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=i}^{(l_{ik}-i+1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right)$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(l_{ik}-k-j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^n \sum_{l=1}^{(l_{ik}-i^{l+1})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(n_i - i^{l+1} - 1)!}{(l_{ik} - j_{ik} - i^{l+1} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n_i - n - 1)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\lfloor \frac{D-l_i}{2} \rfloor} \sum_{j_{ik}=j_{sa}^{lk}}^{(\cdot)} \sum_{j_{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{lk} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{lk} - s - j_{sa}^{lk})!}}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{lk} \leq j_{ik} \leq j_{sa} + j_{sa}^{lk} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{lk} + 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{lk} + 1 > l_s \wedge l_{sa} + j_{sa}^{lk} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{lk} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{lk} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{lk} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{lk}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 5 \bullet \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{lk}+1} \right)$$

$$\sum_{(j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa})}^{(\cdot)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{lk}+1}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} (j^{sa} + j_{sa}^{ik} - j_{sa} - 1) \cdot \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} (j_{sa}^{ik} - k - j_{sa}^{ik} + 1) \cdot \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \quad \left. \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{ik_2}-j_{ik}+1)}^{(j_{ik}-l_{ik_2})} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \right) \\
& \frac{(j_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{ik_2}-j_{ik}+1)}^{(n_{ik}-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbb{k}_1}^{l_{ik}} \sum_{j_{ik}=\mathbb{k}_1}^{l_{ik}-k+1} \sum_{j_{sa}=\mathbb{k}_1}^{l_{sa}-k+1} (j_{ik} - j_{sa}^{ik} - 2) j^{sa} = l_{sa} + \mathbf{n} - D \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbb{k}_1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{j_{ik}=\mathbb{k}_1}^{l_{ik}+j_{sa}-\mathbb{k}_1-j_{sa}^{ik}+1} \sum_{j_{sa}=\mathbb{k}_1}^{l_{sa}+j_{sa}-\mathbb{k}_1-j_{sa}^{ik}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(n_i + j_{sa} - n - s)!}{(n_i + j^{sa} - n - 1)! \cdot (n_i - j_{sa} - j^{sa} - s)!} + \\
& \sum_{i^l(j_{ik}-l_{ik}+n-D)}^{(l_{ik}-i^l+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+2}^{l_{sa}-i^l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2} \sum_{(j_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i + n - I)! \cdot (n + l_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(j^{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} - n - j_{sa}^{ik} \wedge$$

$$D \geq n - 1 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} - j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_2} \\
& \frac{(n_i - n_{ik} - l_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}-l_{sa}-j_{sa}^{ik}-1)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_2} \\
& \frac{(n_i - n_{ik} - l_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa}^{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=_i l}^{(j^{sa} + j_{sa}^{ik} - j_{sa} - 1)} \sum_{(j_{ik} = l_{ik} + n - D)}^{l_{ik} + j_{sa} - _i l - j_{sa}^{ik} + 1} \sum_{j_{sa} = l_{sa} - j_{ik} - j_{sa} + 1}^{j_{sa} - j_{ik} - j_{sa} + 1} \Delta$$

$$\sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{sa} - j_{ik} - j_{sa} + 1}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - _i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - _i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=_i l}^{(l_{ik} - _i l + 1)} \sum_{(j_{ik} = l_{ik} + n - D)}^{l_{sa} - _i l + 1} \sum_{j_{sa} = l_{ik} + j_{sa} - _i l - j_{sa}^{ik} + 2}^{l_{sa} - _i l + 1}$$

$$\sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{sa} - j_{ik} - j_{sa} + 1}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - 1)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=l_i+n_{ik}-j_{sa}^{ik}-D-s}^{j_{sa}^{ik}-k} \sum_{j_{sa}^{ik}=n_{sa}-j_{sa}^{ik}}^{j_{sa}^{ik}-k} \cdot$$

$$\sum_{n_{is}=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_{is}-j_s+1)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_1})}$$

$$\frac{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D > \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik} j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-k+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - n_s) \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{sa} - s)!} - \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik} j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}-1, j_{sa})}^{()} \sum_{j_{sa}=j_{sa}^{ik}+1}^{j_{sa}^{ik}-k+1} \\ & \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{sa} - n_{ik} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(j_{sa} - j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}^{ik}}^{j_{sa}^{ik}-k+1} \\ & \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \end{aligned}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n_{is}+\mathbb{k}_1+j_{sa}-j_{sa}^{ik}-j_{sa})}^{(n_{ik}-\mathbb{k}_1+1)} \Delta_{(n_{ik}-\mathbb{k}_1+1)-j_{ik}})$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}-j_{sa}}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-j_{sa})}^{()} \frac{(n_i + j_{sa} + j_{sa}^{ik} - j_{sa}^{sa} - s - j_{sa})!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa}^{ik} - j_{sa}^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} - k - 1)!}{(n + j_{sa}^{ik} - j_{sa}^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_i - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - j_{sa}^{ik}$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{s = \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - 1)!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(n_i - n - 1)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - 1)! \cdot (n + j_{ik} - j_{sa} - s)!} \\
& \sum_{k=1}^{\infty} \sum_{(j_{ik} = j_{sa}^{lk})} \sum_{j_{sa} = j_{sa}} \\
& \sum_{n_i = n + \mathbb{k}} \sum_{(n_{is} = n_i - j_{sa} - \mathbb{k}_1 + 1)}^{(\quad)} \sum_{n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j_{sa}^{ik} < j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} -$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-1)!}{(n_i-n-1)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s-1)!}{(D+j_{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq l_s + s - n \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k}_k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq l_s, s = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2, \dots, l_s = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} -$$

$$\sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()}$$

$$\begin{aligned}
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \sum_{k=0}^{\lfloor \frac{l_i - l_s}{2} \rfloor} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(j_{ik}-j_{sa}^{ik})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{sa}+\mathbb{k}_1+1)}^{(n_{ik}=n_{sa}+\mathbb{k}_1+1)} \sum_{(n_{sa}=n_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_i - l_s)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}^{ik}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} = l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s \leq s - n + 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \mathbb{k}_1, j_{sa}^i - 2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = \mathbb{k} + \mathbb{k} \wedge$$

$$s = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n - l_{sa} - s)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - s)!} + \\
& \sum_{k=1}^{(D+l_s+s-n-l_i)} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (l_i+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{()} \sum_{l_i}^{()} \sum_{j_{sa}=j_{sa}^{ik}}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{j_{sa}=j_{sa}^{ik}-l_{k_2}}^{n_{ik}+j_{sa}-j_{sa}^{ik}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_{sa}^{ik} - l_{k_1} - 1)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa}^{ik} - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{js} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{l_i=0}^{D+l_s+s-l_i} (l_{sa} + j_{sa}^{ik} - k - j_{sa} + 1) \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$fz^{s-1} j_{sa}^{ik} = \sum_{k=1}^{i^{l-1} (j^{sa} + j_{sa}^{ik} - j_{sa})} \sum_{(j_{ik} = j_{sa}^{ik} + 1)} \sum_{j^{sa} = \mathbf{l}_i + \mathbf{n} + j_{sa} - D - s} \mathbf{l}_{ik} + j_{sa} - k - j_{sa}^{ik} + 1$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}^{ik}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} - k + 1)!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^l-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} S_{j_{ik}, j_{sa}} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}^{ik}-s}^{l_i+j_{sa}-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik})! (n_{sa} - 1)!}{(j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{n_{ik} - j_{ik} - \mathbb{k}_2} \sum_{l=0}^{n_{sa} - j_{sa} - \mathbb{k}_2} \sum_{s=0}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \frac{(n_{ik} - l_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - l_{ik} - \mathbb{k}_1 - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=l_s+j_{sa}^{ik}-k+1)}^{l_i+j_{sa}^{ik}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^l-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\substack{(\quad) \\ (j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}, j_{sa}=l_i+n+j_{sa}-D+l_s+s-n-l_i)}} \sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-D+l_s+s-n-l_i)}} \cdot$$

$$\sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-D+l_s+s-n-l_i)}} \sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-D+l_s+s-n-l_i)}} \cdot$$

$$\sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-D+l_s+s-n-l_i)}} \sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-D+l_s+s-n-l_i)}} \cdot$$

$$\frac{(n_i + j_{ik} - l_i - s - j_{sa}^{ik} - l)!}{(n_i - n - l_i)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq n < n \wedge l_s \leq D - l_i + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_i + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_{ik}-l_k+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n+l_k+j_{sa}^{ik}-j_{ik}-l_k+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-l_k+1)} \\
& \frac{(n_i - n_{ik} - l_{k1})!}{(j_{ik} - l_{k1})! \cdot (n_i - n_{ik} - j_{ik} - l_{k1} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k1})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_s^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge \mathbf{s} = s \wedge \mathbb{K} \wedge$$

$$\mathbb{K}_2 = 2 \wedge \mathbb{K} = \mathbb{K}_1 \vee \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{(j_{sa}=j_{sa}^{ik}-k-j_{sa}^{ik}+1)}^{(j_{sa}-k+1)} \cdot \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-k)} \sum_{j_{sa}=j_{sa}^{ik}}^{l_{sa}-l+1} \cdot \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_{ik}-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot
\end{aligned}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} + j_{ik} - j^{sa} - s)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (n_{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \sum_{i=1}^{i_l-1} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{j_{ik}} \sum_{j_{sa}=j_{sa}^{ik}+1}^{j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{ik}=n_i}^{n_i-j_s+1} \sum_{j_{sa}=n+\mathbb{k}}^{n_{is}+j_{sa}^{ik}-j_{ik}} \sum_{j_{sa}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=n_i}^n \sum_{l=1}^{i_l} \sum_{j_{ik}=j_{sa}^{ik}}^{j_{sa}^{ik}} \sum_{j_{sa}=j_{sa}}^{j_{sa}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_2: \mathbb{Z} > 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\ &\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_{sa}-j_s+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-1)}^{(n_i-j_{ik}-1)} \sum_{n_{ik}=n_{ik}+j_{ik}-j_{ik}}^{\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_{sa}-j_s+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{sa}-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{\infty} \sum_{l=0}^{\infty} \sum_{j_{ik}=j_{sa}^{ik}}^{()} j_{sa}^{sa} = j_{sa}^{sa} \\
& \sum_{n_i=n+l}^n \sum_{(n_{ik}=n_i-j_{ik}-l_1+1)}^{()} n_{sa} \\
& \sum_{j_{ik}=j_{sa}^{ik}-l_2}^{()} j_{sa}^{sa} = j_{sa}^{sa} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - s - n - l_i)!}{(n - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_1, j_{sa}^{ik}, l_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + l \wedge$$

$$l_z: z = 2 \wedge l = l_1 + l_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - l_{ik} + 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{()} j_{sa}^{ik} = l_{sa} + n - D - s$$

$$\sum_{n_i = n + k}^n \sum_{(n_{ik} = n + k + j_{ik} + 1)}^{(n_i - j_{ik} - k_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - n_{ik} - k_1 + 1)!} \cdot \frac{(n_i - n_{sa} - k_1 - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + j^{sa} - n - l_i} \sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa})}^{()} \sum_{j_{sa}^{ik} = l_i + n + j_{sa} - D - s}^{l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - k_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z \leq 2 \wedge \mathbb{K}_z = \mathbb{K}_1 \vee \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i l-1} \frac{(l_{sa} + \mathbf{n} + j_{sa}^{ik} - D - j_{sa} - 1)}{(j_{ik} = j_{sa}^{ik} + 1)} \frac{l_{sa} - k + 1}{j_{sa} = l_{sa} + \mathbf{n} - D} \\ &\sum_{n_i = \mathbf{n} + \mathbb{K}}^n \frac{(n_i - j_{ik} - \mathbb{K}_1 + 1)}{(n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1)} \frac{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}{n_{sa} = \mathbf{n} - j^{sa} + 1} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa}^{ik})}^{(l_{ik}-k+1)}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-i^l+1}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \cdots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{ik}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^{l-1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-i^{l+1})} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i + n - I)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \wedge D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n - j^{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - l_i)! \cdot (\mathbf{n} - j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s = l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + j_{sa} - \mathbf{n} - 1$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik} - \mathbb{k}_2, j_{sa}^{ik} - j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k},$$

$$\mathbb{k}_2: z = \mathbb{k} \Rightarrow \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}. \end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{l_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n - j_{sa} - j_{ik} - \mathbb{k}_2}^n \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} - 1}^{j_{ik} - j_{sa} - 1} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D + l_s + s - n - l_i} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{is})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-1)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-l_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n-1)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{ik} \leq n + l_s + j_{sa}^{ik} - \mathbf{n} - j_{sa} \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 {}_{fz}S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbb{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbb{l}_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(\mathbb{l}_{ik} - j_{ik} - j_{sa}^{ik})!}{(\mathbb{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - \mathbb{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbb{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbb{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbb{l}_{sa}+j_{sa}^{ik}-i^l-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(\mathbb{l}_{ik} - i^l - j_{sa}^{ik})!}{(\mathbb{l}_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - \mathbb{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbb{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} -
 \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-I)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l_s-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} - s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}-j_{sa})}^{()} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-j_{sa}-\mathbb{k}_1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}-j_{sa})}^{()} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{lk} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{lk}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k}.$$

$$\mathbb{k}_2: z = 1, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i l-1} \frac{(l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1)}{(j_{ik} - j_{sa}^{ik} + 1)} \frac{l_{sa} - k + 1}{j_{sa} = l_{sa} + n - D} \\ &\sum_{n_i = n + \mathbb{k}}^n \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)}{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)} \frac{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}{n_{sa} = n - j^{sa} + 1} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}. \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{i l - 1} \frac{(j_{sa}^{ik} - k)!}{(n_{sa} + j_{sa}^{ik} - D - j_{sa})!} \sum_{l_{sa} = k+1}^{l_{sa} - k+1} \frac{n_{sa} - j_{sa}^{ik}}{j^{sa} - j_{sa}^{ik}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 - 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i l}^{()} \sum_{(j_{ik} = j_{sa}^{ik})}^{()} \sum_{j^{sa} = l_{sa} + \mathbf{n} - D}^{l_{sa} - i l + 1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - l_i - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{l_i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{j_{sa}^{ik}=1}^{(l_s+j_{sa}^{ik})} \sum_{j_{ik}=l_i+n_{ik}^{ik}-D-s}^{(j_{ik}+n_{ik}^{ik}-D-s)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{ik}+j_{sa}-j_{sa}^{ik})} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((\mathbf{n} - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$D \geq n < n \wedge l = \mathbb{K} > n \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = n + \mathbb{K} \wedge$$

$$\mathbb{K}_2: \mathbb{K} \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i_{ik}} \sum_{(j_{ik}=l_{ik}-k+1)}^{(l_{ik}-k+1)} \sum_{(n=D)}^{l_{sa}-1} \frac{(l_{ik}-k+1)!}{(j_{ik}-l_{ik}+k-1)! \cdot (n-D)!} \cdot \frac{l_{sa}-1}{j^{sa}-l_{ik}+j_{sa}-k-j_{sa}^{ik}+2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \frac{(n_i-j_{ik}-\mathbb{k}_1+1)!}{(j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{n_{sa}=\mathbf{n}-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^n \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-i)l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i)l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i)l - j_{sa}^{ik}}{(l_{ik} - j_{ik} - i)l - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D > n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$j_{sa} \in \{j_{sa}^i, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned}
f_Z^{SDOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^{l_{ik}-i} \sum_{l=l_{ik}+n-D}^{l_{ik}-i} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-i} \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n+l_k}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-l_{k_2})} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - n_{ik} - l_{k_1} - 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} - l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^n \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & f_z S_{j_{ik}, j_{sa}}^{DOS} \sum_{k=1}^{l_i} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{(j_{sa}^{ik} - j_{sa})} \sum_{j_{sa} = l_i + \mathbf{n} + j_{sa} - D - s}^{l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1} \\ & \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D)}^{l_i+j_{sa}-i^{l-s}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}, \quad l_i+l_i+n+j_{sa}-D-s)}^{(l_{sa}-k)} \sum_{(n_i-j_s)}^{(n_i-j_s)} \sum_{(n_{is}+l_k+j_{sa}^{ik}-j_{ik})}^{(n_{is}+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k1}, \quad n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k1}, \quad n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k2})} \\
& \frac{(n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n - n - 1)! \cdot (n + j_{sa} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{ik} \leq j^{sa} \leq j^{sa} + j_{sa} - s \wedge$$

$$l_{ik} - j_{ik} + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - l_i \leq l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$n - n - 1 \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z^{DOSD} S_{j_{ik}, j^{sa}} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_{ik} - l + 1)} \sum_{(j_{ik} = l_{ik} + n - D)}^{l_i + j_{sa} - l - s + 1} \sum_{j^{sa} = l_i + j_{sa} - D - s}^{j_{sa} - D - s}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{ik} = n + \mathbb{K} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j^{sa} - n_{ik} - \mathbb{K}_1 + 1)!}$$

$$\frac{(n_{sa} - n_{ik} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + l_s + j_{sa} - n - l_{sa}} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{K}_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + k - j^{sa} - l_{ik})!}{(j_{ik} + k - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-k+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=k}^{n-D} \\
& \sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik})!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - j_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_{is}=n+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{K}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 =$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right.$$

$$\sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-1}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-1}^{(l_s+j_{sa}^{ik}-k)} \\
& \sum_{n_i=n+l_{ik}=n+l_{k_2}+j_{ik}+1}^n \sum_{n_{is}=n+l_{k_2}+j_{ik}+1}^{(j_{ik}-n_{is}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{is}-j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - n_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(j_{ik} - n_{ik} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (j_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_{k_2}}^n \sum_{n_{is}=n+l_{k_2}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa}^i \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa}^l - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \cup_{\mathbb{k}_1=1}^{\mathbb{k}_1} \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, \dots, j_{sa}^l \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z \leq 2 \wedge \mathbb{k} = \mathbb{k}_Z \wedge \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{lk}+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}+1} \sum_{(j_{ik}=n-D)}^{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \right) \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=n_i-j_{sa}-j_{ik})}^{(n_i-j_{sa}+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1-j_{sa}-j_{ik}}^{(\quad)} \sum_{n_{ik}=j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{sa}^{ik} + j_{sa} - j_{ik} - s - j_{sa}^{ik} - 1)!}{(n - \mathbf{n} - l)! \cdot (j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa}^{ik} - j_{sa} - k - 1)!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + l_s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} < j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} j^{sa} = j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{lk}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - j_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s - 1)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=l_i+n-l_{ik}-D-s}^{(l_i+j_{sa}^{ik}-k)} j_{sa}^{ik} \cdot$$

$$\sum_{i=n+\mathbb{k}}^n \sum_{j_{sa}^{ik}=n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}$$

$$\sum_{j_{sa}^{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} (n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)$$

$$\frac{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_{ik} + j_{ik} - I)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_s+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik})}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_{ik}-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-j_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-j_{sa}-n-1)!}{(n_{sa}-j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-k-j_{sa}^{ik})!}{(l_s-j_{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \sum_{k=1}^{l_s+n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-l)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & f z S_{j_{ik}, j_{sa}}^{DOS} \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n=\mathbb{k}}^{(n_i-j_{sa}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \end{aligned}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - l_i)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_s \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{s-\mathbb{k}_1}, j_{sa}^{ik}, \dots, j_{sa}^{s-\mathbb{k}_2}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{()} \sum_{l_s+j_{ik}-k}^{()} \frac{j_{sa}^{ls} \cdot l_{ik} + n + j_{sa}^{ls} - D - j_{sa}^{lk}}{(n_{ik} - n - l_{ik} - 1)! \cdot (n + j_{sa} - j^{sa} - s - j_{sa}^{lk})!}.$$

$$\sum_{n_i=n+l_k}^{(n_{ik}=n_{is}+j_{sa}^{lk}-j_{sa}^{lk}-l_{k_1})} \sum_{(n_{ik}=n+l_k+j_{sa}^{lk}-j_{ik})}^{()} \frac{j_{sa}^{ls} \cdot l_{ik} + n + j_{sa}^{ls} - D - j_{sa}^{lk}}{(n_{ik} - n - l_{ik} - 1)! \cdot (n + j_{sa} - j^{sa} - s - j_{sa}^{lk})!}.$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{lk}-j_{sa}^{lk}-l_{k_1}}^{(n_{ik}=n_{is}+j_{sa}^{lk}-j_{sa}^{lk}-l_{k_1})} \sum_{(n_{ik}=n+l_k+j_{sa}^{lk}-j_{ik})}^{()} \frac{j_{sa}^{ls} \cdot l_{ik} + n + j_{sa}^{ls} - D - j_{sa}^{lk}}{(n_{ik} - n - l_{ik} - 1)! \cdot (n + j_{sa} - j^{sa} - s - j_{sa}^{lk})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik} - l)!}{(n_{ik} - n - l_{ik} - 1)! \cdot (n + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D \geq n < n \wedge l_s = D - n - 1 \wedge$$

$$j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{ik} + 1 \leq j_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(j_{ik} - n_{ik} - 1)!}{(l_{ik} - j_{ik} - \mathbf{n} - 1)! \cdot (j_{ik} - j_{sa} - 1)!} \cdot \\
& \frac{(D - j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa} - 1)! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - n_{sa} + 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa}^{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{D + j_{sa} - \mathbf{n} - l_{sa}} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}^{ik}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+j_{sa}-k-s+1}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{ik} - j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{ik} - j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(l_{ik}-k+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D)}^{(j_{ik}=l_i+n+j_{sa}^{ik}-D)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa})}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa})}$$

$$\sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})}^{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})}^{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})}$$

$$\sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})}^{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{s_2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{s_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-l_{ik})} \sum_{j_{sa}=l_{sa}+j_{sa}^{ik}-k}^{l_s+j_{sa}^{ik}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_1-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - n_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - n_{sa} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+j_{sa}^{ik}-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - n_{sa} + 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j_{sa}^{ik}-j_{sa})} \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(D > \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{sa}}^{l_{sa}} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-D-j_{sa}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}=l_{sa}+n-1} \frac{(n_i - \mathbb{k}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - l_{sa} - j_{sa}^{ik})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(n_i + j_{sa} - \mathbf{n} - s)!}{(n_i + j^{sa} - \mathbf{n} - s)! \cdot (n_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{l_s=1}^{D+l_s-\mathbf{n}-l_i} \sum_{(l_{ik}=\mathbf{n}-1)}^{(l_{ik}-1)} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-D-s)}^{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{s-j_{sa}^{ik}} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_i+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{sa}}^{()} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{sa})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i + n - l)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(n_i - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee
\end{aligned}$$

$$\begin{aligned}
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee
\end{aligned}$$

$$\begin{aligned}
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge
\end{aligned}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i+j_{ik}-\mathbb{k}_1+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{sa}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{sa} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$j_{sa}^{sa} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}_1+j_{sa}-j_{ik})}^{(n_{is}+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{j^{sa}=n_{ik}+j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa} - j_{sa}^{ik} - k - 1)!}{(j_{ik} + j_{sa} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
& ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} < j^{sa} + j_{sa} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa})) \wedge \\
& D \geq n < n \wedge l = \mathbb{k} > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge
\end{aligned}$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+j_{sa}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-1} \\
 & \frac{(n_i - 1)!}{(j_{ik} - 2)! (n_i - n_{ik} - 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{i=1}^{D+l_s+s-\mathbf{l}_i} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_s=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} + j_{sa} - n - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik})!}{(j_{ik} + j_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DO} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \mathbb{k}_1, j_{sa}^i, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_{sa}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i+l_k-j_{ik})}^{(n_i+l_k+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{ik}}^{()} \sum_{(n_{ik}+j_{sa}-l_{ik})}^{()} \frac{(n_i + j_{sa} - l_{ik} - j_{sa} - s - j_{sa}^{ik} - 1)!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(n - k - 1)!}{(n + j_{sa} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(n - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{ik}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$fz S_{j_{ik}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}-k+\mathbf{n}-D)}^{\mathbf{n}+j_{sa}^{ik}-j_{sa}-1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_{sa}-k+1} \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-\mathbb{K}_2-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_i - 1)!}{(n_i + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - j_{ik} - 1)!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{D+l_s+s-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_t \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j_{sa}+1}^{l_{ik}-j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}^{ik}-j_{sa}-k} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}-k)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}^{(-k+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i^{l+1})} \sum_{j_{sa}=j_{sa}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}, j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(n_{is}=n_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(n_{is}=n_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{(n_{is}=n_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(n_{is}=n_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(n_{is}=n_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \binom{l-1}{k} \sum_{j_{sa}=j_{sa}^{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{n_{ik}=n+\mathbb{K}_2-j_{ik}+1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}=n-j_{sa}+1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right.$$

$$\sum_{k=1}^{i^l} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) \\
& \left(\sum_{k=1}^{i^{l-1}} (j^{sa} + j_{sa}^{ik} - j_{sa})! \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{sa}+2}^{(l_{sa}-k+1)} \right. \\
& \left. \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \right. \\
& \frac{(n_i - \mathbb{K}_1 - 1)!}{(j_{ik} - \mathbb{K}_1 - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{i^{l+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \cdot \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-l-1)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-s)!} \\
& \sum_{k=0}^{l_i-l-1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}-j_{sa}^{lk}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-\mathbb{k})! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq \mathbf{n} - \mathbf{n} + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{ik} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \right.$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - j_{sa}^{lk})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{lk} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_{ik}=j_{sa}^{lk})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \Bigg) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=j_{sa}+2}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_{sa}-j_{sa}^{ik}+1} \sum_{n_i=n+l}^n \sum_{(n_{ik}=n+l-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{(n_{is}=n+l+j_{sa}^{ik}-j_{ik})}^{(n_{ik}+j_{sa}^{ik}-j^{sa}-l_{k_2})} \frac{(n_i - j_{ik} - l_{k_1} - 1)!}{(n_i - n - l)! \cdot (n_i - j_{ik} - j_{sa} - l_{k_2})!} \cdot \frac{(n_{ik} - j_{sa}^{ik} - l_{k_2} - 1)!}{(n_{ik} + j_{sa}^{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_{sa}-j_{sa}^{ik}+1} \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l+j_{sa}^{ik}-j_{ik})}^{(n_i-j_{sa}^{ik}+1)} \frac{(n_i - j_{sa}^{ik} - 1)!}{(n_i - n - l)! \cdot (n_i - j_{sa}^{ik} - j_{sa} - l_{k_2})!} \cdot \frac{(n_{ik} - j_{sa}^{ik} - l_{k_2} - 1)!}{(n_{ik} + j_{sa}^{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^n \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_i-j_{sa}^{ik}+1)} \frac{(n_i - j_{sa}^{ik} - 1)!}{(n_i - n - l)! \cdot (n_i - j_{sa}^{ik} - j_{sa} - l_{k_2})!} \cdot \frac{(n_{ik} - j_{sa}^{ik} - l_{k_2} - 1)!}{(n_{ik} + j_{sa}^{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^n \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_i-j_{sa}^{ik}+1)} \frac{(n_i - j_{sa}^{ik} - 1)!}{(n_i - n - l)! \cdot (n_i - j_{sa}^{ik} - j_{sa} - l_{k_2})!} \cdot \frac{(n_{ik} - j_{sa}^{ik} - l_{k_2} - 1)!}{(n_{ik} + j_{sa}^{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{lk})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}}^{()} \sum_{j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - 1 = l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge s_{sa} = j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{s-\mathbb{k}_1}, j_{sa}^{ik}, \dots, j_{sa}^{i-\mathbb{k}_1}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(n-j_{ik}-l_{sa}+1)} \sum_{n_{ik}=n+l_{sa}-j_{ik}+1}^{n_{ik}+j_{ik}-l_{sa}-l_{k_2}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - j_{ik} + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(l_{ik}=k+1)}^{(l_{ik}=k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+l_{sa}}^n \sum_{(n_{ik}=n+l_{sa}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{ik}-1)} \sum_{(n_{sa}=\mathbf{n}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \cdot \\
& \frac{(n_i - n_{ik})!}{(n_{ik} - \mathbb{k}_2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \cdot \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{sa}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}^{ik}}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n-j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - n - n - l_i)!}{(D - n - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - 1 \wedge$$

$$D \geq n < n - l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{i_1}, j_{sa}^{i_2}, \dots, \mathbb{k}_2, j_{sa}^{i_{\mathbb{k}}}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_2: n - l \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \left(\sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{()} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \right. \\
& \left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{i=1}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}-i^{l+1}} \sum_{j_{sa}=1}^{l_{sa}-i^{l+1}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_{is} - j_{sa} - s)!} \cdot \\
& \sum_{k=0}^{(\quad)} \sum_{l_i(n_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1+1, n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{sa} + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{sa} \leq D - l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D > \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^i, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_{sa}+n-}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - n - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(n_{sa} - l_{sa} - s + 1)} \sum_{l_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{sa}=l_{sa}+n-j_{sa}^{sa}-k}^{(j_{sa}-j_{sa}^{sa})} \\
& \sum_{n_i=n+l_{sa}-j_{sa}^{sa}-k+1}^n \sum_{n_{ik}=n+l_{sa}-j_{sa}^{sa}-k+1}^{(j_{ik}-j_{sa}^{ik})} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{(j_{sa}-j_{sa}^{sa})} \\
& \frac{(n_i - 1)!}{(j_{ik} - l_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{sa} - k - 1)!}{(j^{sa} - j_{sa}^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\
& \sum_{n_i=n+l_{sa}}^n \sum_{(n_{is}=n+l_{sa}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{sa}-j_{sa}^{ik}-l_{sa}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{sa})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right.$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}+j_{sa}-k} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}}^{(l_{sa}+j_{sa}^{ik}-l_{sa}-k+1)} \sum_{j_{sa}=l_{sa}+n-j_{ik}-j_{sa}^{ik}}^{j_{sa}=l_{sa}+n-j_{ik}-j_{sa}^{ik}-1} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_{k_2}} \\
& \frac{(n_i - l_{k_1} - 1)!}{(j_{ik} - l_{k_1} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - l_{k_1} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
& \sum_{n_i=n+l_{k_1}}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_{k_2}}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - a)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_{sa})!} \cdot \\
& \sum_{i=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(n-l_i-j_{sa}+1)} \sum_{k=0}^{l_s+j_{sa}-k} \sum_{l=0}^{(n-l_i-j_s+1)} \sum_{m=n+\mathbb{k}}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{ik}-k+1)} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \right. \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \right. \\ \left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}+l_{sa}+\mathbf{n}+j_{sa}^{ik}-j_{sa})!} \frac{l_{sa}-k+1}{j^{sa}-l_{sa}+1} j_{sa}^{ik}+1 \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{ik}-j_{sa}^{ik})!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{ik}-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-l_{ik})! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - s > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq l_s + l_{ik} + j_{sa} - j_{sa}^{ik} - s \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$$

$$s \cdot \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq \mathbb{k}_2 \wedge s = s + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \left(\sum_{k=\mathbf{n}}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{n+j_{sa}^{ik}-j_{sa}-1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^n \sum_{l=1}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \frac{(n_i - j_{ik} - l_{k_1} + 1)!}{(n_{ik} + j_{sa} - j_{ik} + 1)!} \frac{(n_{ik} + j_{sa} - j_{sa} - l_{k_2})!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}.$$

$$\frac{(n_i - j_{ik} - l_{k_1} - 1)!}{(n_{ik} + j_{sa} - j_{ik} + 1)!} \frac{(n_{ik} + j_{sa} - j_{sa} - l_{k_2})!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \frac{(n_i - j_{sa} + 1)!}{(n_{ik} + j_{sa} - j_{ik})!}.$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_{zS} S_{j_{ik}}^{n,D} &= \sum_{k=1}^{l-1} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1} \\ &\sum_{i=n+\mathbb{K}}^n \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=1}^l \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-l+1} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l + j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - j^{sa} - \mathbf{n} - l_i - j_{sa})!}{(D + j^{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{j_{sa}=\mathbf{n}-j^{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_2+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{j_{sa}=\mathbf{n}-j^{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=i^l}^{(l_{sa}+j_{sa}^{ik}-i^l-j_{sa}+1)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_i - j^{sa} - \mathbf{n} - \mathbb{k}_2)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^l - 1)!}{(l_{ik} - j_{ik} - i^l - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_{sa}=j_{sa}}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2 - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - s \wedge l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^{ik}, \dots, j_{sa}^i, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = n + \mathbb{k} \wedge$$

$$I = \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^l \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-i^{l+1})} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+l}^n \sum_{(n_{ik}=n+l-k_2-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - l_{sa})! \cdot (n - j^{sa})!} \\
& \frac{(n_i - i^{l+1} - j_{ik} - 1)!}{(l_{ik} - j_{ik} - i^{l+1} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{k_1} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\sum_{i=1}^l (j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}^{()}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - s \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^1, j_{sa}^{ik}, \dots, j_{sa}^{\mathbb{k}_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = \mathbf{n} + \mathbb{k} \wedge$$

$$\mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(i^l - i^{l+1})} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa} - i^{l+1}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa} - i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot$$

$$\frac{(l-k-1)!}{(l+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot$$

$$\frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (\mathbf{n}-j_{sa}-j^{sa}-s)!} \cdot$$

$$\sum_{k=1}^{(l)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(l)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-\mathbb{k})! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot$$

$$\frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = l \wedge j_{sa} = \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa}^{ik} + j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1} \\ \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ \frac{(l_{ik}-j_{ik}-i^l-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-i^l+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ \frac{(D-j_{sa}-n-l_{sa}-s)!}{(D-j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ \sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}}^{l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ \frac{(l_{ik}-i^l-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-i^l+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + k - j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + k - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{lk}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=i}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{(j_{sa}=j_{sa}^{ik}-1)}^{l_{ik}+j_{sa}-i-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n-j_{sa}+1)}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik})!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - \mathbb{K}_2 - 1)!}{(j^{sa} - \mathbb{K}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-i-l+1)} \sum_{(j_{sa}=l_{ik}+j_{sa}-i-l-j_{sa}^{ik}+2)}^{l_{sa}-i-l+1}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - 1)!} - \\
& \sum_{k=1}^{\Delta} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{l_s+j_{sa}-k} \sum_{j_{sa}=1}^{l_s+j_{sa}-k} \\
& \sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{\Delta} \sum_{j_{ik}=j_{sa}^{ik}}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_{z=1}^{DOSD} = & \left(\sum_{k=1}^{n-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-j_{sa}^{ik})} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n-j_{ik}-\mathbb{k}_1+1)} \right. \\ & \sum_{n=\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\ & \sum_{k=i}^{(l_{ik}-i+1)} \sum_{j_{ik}=j_{sa}^{ik}}^{(l_{ik}-i+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_{ik}-i+1)} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \left(\sum_{k=1}^{j_{sa}^{ik}-l_{sa}-s} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(l_{ik}-k-j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l_{ik}} - 1)!}{(l_{ik} - j_{ik} - i^{l_{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\binom{D}{l}} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{\binom{D}{l}} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{lk} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 5 \bullet \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{lk}+1} \right.$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{\binom{D}{l}} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{lk}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{(l_{sa}-k-j_{sa}^{ik}+1)} \right. \\
& \quad \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(j_{ik}-j_{sa}^{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \quad \frac{(n_i - j_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \quad \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \quad \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \quad \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \quad \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \quad \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \quad \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{i l} \sum_{j_{ik}=l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}}^{l_{ik}-k+1} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \frac{(n_i - j_{ik} - \mathbb{K}_1 + 1)!}{(n_i - \mathbf{n} + \mathbb{K}_1 - n_{ik} - \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1)!} \frac{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}{n_{sa} = \mathbf{n} - j^{sa} + 1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{i l} \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-i l-j_{sa}^{ik}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(n + j_{sa} - n - s)!}{(n + j^{sa} - n - s)! \cdot (n - j_{sa} - j^{sa} - s)!} + \\
& \sum_{i^l=j_{ik}-l_{ik}+n-D}^{l_{ik}-i^l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+2}^{l_{sa}-i^l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2}^{()} \sum_{j_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i + n - I)! \cdot (n + l_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(n + j_{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - j^{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} - n - j_{sa}^{ik} \wedge$$

$$D \geq n - 1 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{ik} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + n_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{(l_{ik}-j_{ik}-l_{sa}-j_{sa}^{ik}-1)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-\mathbf{l}_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=\mathbf{l}_{sa}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-\mathbf{l}_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=i}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j_{ik} = l_{ik} + n - D, j_{sa} = l_{sa} - D)} \frac{(l_{ik} + j_{sa} - i - l - j_{sa}^{ik} + 1)!}{(j_{ik} - i - l + 1)! \cdot (j_{sa} - i - l + 1)!} \cdot$$

$$\sum_{n_i = n + \mathbb{K}_1}^n \sum_{(n_i - j_{ik} - \mathbb{K}_1 + 1)}^{(n_i - j_{ik} - 1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \frac{(n_i - j_{ik} - \mathbb{K}_1 + 1)!}{(j_{ik} - i - l + 1)! \cdot (j_{sa} - i - l + 1)!} \cdot$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - i - l - \mathbb{K}_2 - 1)!}{(j^{sa} - i - l - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i}^{(l_{ik} - i - l + 1)} \sum_{(j_{ik} = l_{ik} + n - D)} \sum_{(j_{sa} = l_{sa} + j_{sa} - i - l - j_{sa}^{ik} + 2)}^{l_{sa} - i - l + 1}$$

$$\sum_{n_i = n + \mathbb{K}_1}^n \sum_{(n_{ik} = n + \mathbb{K}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - i! - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i! + 1)! \cdot (j_{ik} - j_{sa}^{ik} - i! + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa}^{ik} - l_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - S)}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - 1)} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} (j_{ik}=l_i+n_{ik}-D-s) j_{sa}^{ik} a-j_{sa}^{ik}$$

$$\sum_{n=\mathbf{n}+\mathbb{K}}^n \sum^{(n_i-j_s+1)} (n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})$$

$$\sum_{n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} (n_{sa}=n_{ik}+j_{ik}^s-j_{sa}^{ik}-\mathbb{k}_2)$$

$$\frac{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_{ik} + \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} + s - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D - n + 1 \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq \gamma^a + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik} j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-k+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{()} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - n_i)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}-1, j_{sa})}^{()} \sum_{j_{sa}=j_{sa}^{ik}+1}^{j_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(j_{sa} - j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n_{is}+\mathbb{k}_1+j_{sa}-j_{sa}^{ik}-j_{sa})}^{(n_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}-j_{sa}}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-j_{sa})}^{()} \frac{(n_i + j_{sa} + j_{sa}^{ik} - j_{sa} - s - j_{sa})!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} - k - 1)!}{(n + j_{sa}^{ik} - j_{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_i - l_i)!}{(D + j^{sa} + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$(s = j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i) \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - 1)!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}
\end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-l)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!}.$$

$$\frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!}.$$

$$\frac{(D-l_i)!}{(D+j_{sa}+s-n-l_i-1)! \cdot (n+j_{ik}-j_{sa}-s)!}.$$

$$\sum_{k=0}^{l_i-l-1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^{()}\sum_{(n_{is}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1+1)}^{()}\sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-n-\mathbb{k})! \cdot (n+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!}.$$

$$\frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}$$

$$D \geq n < n \wedge l_s \leq D+s-n+l_i$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j_{sa}^{ik} \leq j_{ik}+j_{sa}-s \wedge$$

$$l_{ik}+j_{sa}^{ik}-1=l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa}=l_{ik} \wedge l_i+j_{sa}-s>l_{sa} \wedge$$

$$D+s-n+l_i \leq D+l_{sa}+s-n-j_{sa} \wedge$$

$$D \geq n < n \wedge l_i = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^s=j_{sa}^i-1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} -$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} - j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{sa}^{ik}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-j_{ik}+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \sum_{k=0}^{\lfloor \frac{l_i - l_s}{2} \rfloor} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(j_{ik}-j_{sa}^{ik})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{sa}+\mathbb{k}_1+1)}^{(n_{ik}=n_{sa}+\mathbb{k}_1+1)} \sum_{(n_{sa}=n_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge n + j_{sa}^{ik} - j_{sa} = n + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s \leq s - n + 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^{ik}, \dots, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = \mathbb{k} + \mathbb{k} \wedge$$

$$s = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa} - s)! \cdot (n_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (l_i+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{\binom{D}{l}} \sum_{l_{ik}=j_{sa}^{ik}} \sum_{j_{sa}=j_{sa}^{ik}} \\
& \sum_{n_i=n+l_1}^n \sum_{n_{ik}=n+l_1-j_{ik}+1}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n+l_1-j_{sa}^{ik}+1}^{n_{ik}+j_{sa}^{ik}-j_{sa}-l_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - l_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{l_i=1}^{D+l_s+s-l_i} (l_{sa} + j_{sa}^{ik} - k - j_{sa} + 1) \\
& \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_1}^n \sum_{n_{is}=n+l_1+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_2)}^{\binom{D}{l}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_{z=2}^{j_{sa}} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - j_{sa}^{ik} - k + 1)!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l^{l-s}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} S_{j_{ik}, j_{sa}} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}^{ik}-s}^{l_i+j_{sa}-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_i - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{n_{ik} - j_{ik} - \mathbb{K}_2 - 1} \sum_{l=0}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2} \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)!}{(j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{(n_{ik} = \mathbf{n} - j_{ik} + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_i+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-I)!}{(n_i-n-I)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-n-l_i-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}.$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=l_s+j_{sa}^{ik}-k+1)}^{l_i+j_{sa}^{ik}-k-s+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \mathbb{k}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\substack{(\quad) \\ (j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}, n_{sa}=l_i+n+j_{sa}-\mathbb{k}_2)}} \sum_{\substack{(\quad) \\ (j_{sa}=j^{sa}-j_{sa}^{ik}+j_{sa}, n_{sa}=l_i+n+j_{sa}-\mathbb{k}_2)}} \cdot$$

$$\sum_{\substack{(\quad) \\ (n_{is}=n+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}} \cdot$$

$$\sum_{\substack{(\quad) \\ (n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}} \cdot$$

$$\frac{(n_{ik} + j_{ik} - n_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq n - n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-j_{sa}^{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
 & \frac{(l_i+n+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \frac{(l_i+j_{sa}^{ik}-l-s+1)!}{(l_i+n+j_{sa}^{ik}-D-s)!} \cdot \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n+j_{sa}^{ik}-j_{ik}-1)}^{(n_{ik}+j_{ik}-j-s-\mathbb{k}_2)} \frac{(n_i - n_{ik})!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - j_{sa}^{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \frac{(l_s+j_{sa}^{ik}-k)!}{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)!} \cdot \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{is}=n+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \frac{(n_i - j_s + 1)!}{(n_i - n - 1)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n_i - n - 1)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s - \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_1 - j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge \mathbf{s} = s - \mathbb{K} \wedge$$

$$\mathbb{K}_2 = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{(j^{sa}=j_{sa}^{ik}+j_{sa}-k-j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(j_{ik}-j_{sa}^{ik}-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \cdot \\
& \frac{(n_i - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - a)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{sa}-j_{sa}^{ik}+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-\mathbb{k}_1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{\mathbf{l}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(j_{sa}-j_{sa}^{ik}+1)} \sum_{j^{sa}=j_{sa}}^{(j_{sa}-j_{sa}^{ik}+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_{ik}=n_i-j_{sa}^{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-\mathbb{k}_1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_2: \mathbb{Z} > 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_{sa}-j_s+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \\
& \frac{(n_i - n_{ik})!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_{sa}-j_s+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{\infty} \sum_{l=1}^{\infty} \sum_{j_{ik}=j_{sa}^{ik}}^{()} j_{sa}^{sa} = j_{sa}^{sa} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=j_{sa}^{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - s - n - l_i)!}{(n - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s \leq D - n + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D + s - n < l_i \leq D + l_s + s - n - 1) \vee \\
& (D \geq n < n \wedge l_s \leq D - n + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D + s - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge \\
& D \geq n < n \wedge l = \mathbb{k} > 0 \wedge \\
& j_{sa}^{sa} = j_{sa}^{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge \\
& s \geq 5 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow
\end{aligned}$$

$$\begin{aligned}
fz S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} + j_{ik} - n - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_{sa}+n-D-s}^{l_{sa}-l_i+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{(n_{sa}=n+\mathbb{K}-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}$$

$$\frac{(n_i - j_{ik} - \mathbb{K}_1 - 1)!}{(n_i - j_{ik} - \mathbb{K}_1 - 1)! \cdot (n_i - j_{ik} - \mathbb{K}_1 - 1)!}.$$

$$\frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)! \cdot (n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}.$$

$$\frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{sa} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+j^{sa}-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{K}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} = j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_2: \mathbb{Z} > 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \frac{(l_{sa} + \mathbf{n} + j_{sa}^{ik} - D - j_{sa} - 1)}{(j_{ik} = j_{sa}^{ik} + 1)} \frac{l_{sa} - k + 1}{j_{sa} = l_{sa} + \mathbf{n} - D} \sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(l_{ik}-k+1)}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik})!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - j_{ik} - \mathbb{k}_2 + 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^l+1}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(l_{ik}-k+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-l_{ik})}^{(l_{ik}-k+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{ik}-k+1)}$$

$$\sum_{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik})}^{(l_{ik}-k+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(l_{ik}-k+1)}$$

$$\sum_{(n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)}^{(l_{ik}-k+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(l_{ik}-k+1)}$$

$$\frac{(n_i + j_{ik} - l_i - 1)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i - n_{is} - l_i - 1)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik} = l_{ik} + n - D)}^{(l_{ik} - k + 1)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{ik}^{ik}} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \frac{(n_i - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^{l-1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=i^l}^{(l_{ik} - i^{l+1})} \sum_{(j_{ik} = l_{ik} + n - D)}^{(l_{ik} - i^{l+1})} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2} \sum_{(n_{is}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - n - I)! \cdot (n - l_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n - 1 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{ik} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n - j^{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa} - s)! \cdot (n + j^{sa} - n - l_{sa} - s)!} + \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_i+j_{sa}-i^l-s+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_i+j_{sa}-i^l-s+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^l-s+1}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!}.$$

$$\frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}-1)!}.$$

$$\frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-j_{sa}^{ik}-j_{ik}-l_i)! \cdot (\mathbf{n}-j_{sa}-j_{sa}^{ik}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + j_{sa} - \mathbf{n} - 1$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k},$$

$$z: z = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{l_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s) \atop (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n - j_{sa}^{ik} - j_{ik} - \mathbb{K}_2 + 1}^n \sum_{(n_{ik} = n + \mathbb{K}_2 - j_{ik} + 1) \atop (n_{sa} = n - j^{sa} + 1)}$$

$$\frac{(n_i - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D + l_s + s - n - l_i} \sum_{(l_s + j_{sa}^{ik} - k) \atop (j_{ik} = l_i + n + j_{sa}^{ik} - D - s)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{K}_2}^n \sum_{(n_{is} = n + \mathbb{K}_2 + j_{sa}^{ik} - j_{ik}) \atop (n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{K}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-1)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-l_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n-1)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n \leq l_{ik} \leq n + l_s + j_{sa}^{ik} - n - j_{sa} \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbb{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbb{l}_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbb{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbb{l}_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - i-l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i-l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
 \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} - s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}+j_{sa}-k} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-j_{sa}^{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ \frac{(j_{ik}+l_{sa}-j_{sa}-l_{ik})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\ \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+j_{sa}-k+1}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{sa} - l_{ik})! \cdot (j_{sa}^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

[illegible]

$$\frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} - l_{ik})! \cdot (j_{sa}^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}} \sum_{l_s+j_{sa}=k}^{l_s+j_{sa}-k} j^{sa=l_i+n+j_{sa}-D-s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{n_i=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik}}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1} \sum_{n_{sa}=n_{ik}+j_{ik}^s-j_{sa}^{ik}-\mathbb{K}_2}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{lk} \leq j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{lk}, \mathbb{k}_2, j_{sa}^i, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k}.$$

$$\mathbb{k}_2: z = 1, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \frac{(l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1)}{(j_{ik} - j_{sa}^{ik} + 1)} \frac{l_{sa} - k + 1}{j^{sa} = l_{sa} + n - D} \sum_{n_i = n + \mathbb{k}}^n \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)}{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)} \frac{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}{n_{sa} = n - j^{sa} + 1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!} +$$

$$\sum_{k=1}^{i l-1} \frac{(j_{sa}^{ik} - k)!}{(l_{sa} + j_{sa}^{ik} - k - j_{sa})!} \sum_{j_{sa}^{ik} = l_{sa} + \mathbf{n} + j^{sa} - D - j_{sa}}^{l_{sa} - k + 1} \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_2}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_2 - 1)!} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i l} \sum_{(j_{ik} = j_{sa}^{ik})}^{()} \sum_{j^{sa} = l_{sa} + \mathbf{n} - D}^{l_{sa} - i l + 1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{l_i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+n_{ik}^{ik}-D-s)}^{(l_s+j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((\mathbf{n} - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$D \geq n < n \wedge l = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{i_1}, j_{sa}^{i_2}, \dots, \mathbb{K}_2, j_{sa}^{i_1}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = 1 + \mathbb{K} \wedge$$

$$\mathbb{K}_2: \mathbb{K} \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^k} \sum_{(j_{ik}=l_{ik}-n-D)}^{(l_{ik}-k-j_{sa}^{ik})} \sum_{(j_{sa}^{ik}=j_{ik}+j_{sa}-k-j_{sa}^{ik}+2)}^{l_{sa}-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^n \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-i)l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i)l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_i - 1)!}{(n_i - j^{sa} - n - \mathbb{k}_1)! \cdot (n - j^{sa})!} \\
& \frac{(l_{ik} - j_{ik} - i)l - j_{ik}^{ik}}{(l_{ik} - j_{ik} - i)l - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{sa}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{ik} - l + 1} \sum_{j_{ik} = l_{ik} + n - D}^{l_{sa} - l + 1} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^n \sum_{n_{ik} = n + k + j_{ik} + 1}^{(n_i - j_{ik} - k_1 + 1)} \sum_{n_{sa} = n_{ik} + j_{sa} - j_{sa}^{ik} - k_2}^{(n_{ik} + j_{sa} - j_{sa}^{ik} - k_2)}$$

$$\frac{(n_i - j_{ik} - k - 1)!}{(n_i - n - l)! \cdot (n_i - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - k_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + l_s + s - n - l_i} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^n \sum_{n_{is} = n + k + j_{sa}^{ik} - j_{ik}}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - k_1}^{(n_{sa} = n_{ik} + j_{sa} - j_{sa}^{ik} - k_2)} \sum_{(n_{sa} = n_{ik} + j_{sa} - j_{sa}^{ik} - k_2)}^{(n_{sa} = n_{ik} + j_{sa} - j_{sa}^{ik} - k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOS} = \sum_{k=1}^{l_i} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{(j_{sa}^{ik} - j_{sa})} \sum_{j_{sa} = l_i + \mathbf{n} + j_{sa} - D - s}^{l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1} \\ \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D)}^{l_i+j_{sa}-i^{l-s}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}, \dots, l_s=l_i+n+j_{sa}-D-s)}^{()} \sum_{(n_i-j_s)}^{l_s-l_{sa}-k} \sum_{(n_i+l_k)}^{(n_i-j_s)} \sum_{(n_{is}+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}, \dots, n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_i-j_s)} \sum_{(n_{ik}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-l)!}^{(n_i-j_s)} \cdot \\
& \frac{(n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s = D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$$

$$l_{ik} - j_{ik} + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z^{DOSD} S_{j_{ik}, j^{sa}} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - l_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_{ik} - l + 1)} \sum_{(j_{ik} = l_{ik} + n - D)}^{l_{ik} + j_{sa} - l - s + 1} \sum_{j^{sa} = l_{ik} + j_{sa} - D - s}^{l_{ik} + j_{sa} - l - s + 1}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{ik} = n + \mathbb{K} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - j_{ik} - 1)!}{(n_i - n - 1)! \cdot (n_i - n_{sa} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + l_s + j_{sa} - n - l_{sa}} \sum_{(j_{ik} = l_{ik} + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{K}_1}^{(n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{K}_1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + k - j^{sa} - l_{ik})!}{(j_{ik} + k - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-k+1}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{ik}+n-D}^{n-k+1} \\
& \sum_{n_i=n+\mathbb{K}_1}^n \sum_{n_{ik}=n_{ik}-j_{ik}+1}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\
& \frac{(n_{ik}-n_{ik}-\mathbb{K}_1)!}{(j_{ik}-\mathbb{K}_1)! \cdot (n_{ik}-n_{ik}-j_{ik}-\mathbb{K}_1+1)!} \cdot \\
& \frac{(n_{ik}-n_{ik}-\mathbb{K}_2-1)!}{(j^{sa}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_{is}=n+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{K}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 =$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right.$$

$$\sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_1-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - n_i - n_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_{ik}=n+l_{k_2}+j_{ik}+1}^n \sum_{n_{is}=n+l_{k_2}+j_{ik}+1}^{j_{ik}-j_{sa}-1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}-j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(j_{ik} - n_{ik} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (j_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_{k_2}}^n \sum_{(n_{is}=n+l_{k_2}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa}^l \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^s, \dots, j_{sa}^s\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k} = \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{lk}+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+l_{sa}+j_{sa}^{ik}-j_{ik}+1} \sum_{(j_{ik}=n-D)}^{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \right. \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right)
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=n_i-j_{ik})}^{(n_i+\mathbb{k}+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{ik}=j^{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{sa}^{ik} + j_{sa} - j_{ik} - s - j_{sa}^{ik} - 1)!}{(n - \mathbf{n} - l)! \cdot (j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa} - j_{sa}^{ik} - k - 1)!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + l_s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} - 1 \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{ik}+n-D}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \sum_{n_{ik}=n+\mathbb{k}_2}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot
\end{aligned}$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_s+\mathbf{n}+j_{sa}-D}^{l_s+j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}, n_{sa}=\mathbf{n}+j_{sa}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \frac{n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-j_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-j_{sa}-\mathbf{n}-1)!}{(n_{sa}-j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \\ & \frac{(l_s-k-j_{sa}^{ik})!}{(l_s-j_{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+l_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}^{ik}-s)!} \cdot \\ & \sum_{k=1}^{l_s+\mathbf{n}-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\ & \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!} \cdot \\ & \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & f z S_{j_{ik}, j_{sa}}^{DOS} \sum_{i=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+l_{sa}^{ik}-D-1)}^{l_s+j_{sa}^{ik}-k} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{i=n+\mathbb{k}}^{(n_i-n_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \end{aligned}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - l_i - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_s > l_i \wedge l_i + j_{sa} - s = l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{ik} < j_{sa}^{ik} - 1$$

$$s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\},$$

$$s \leq 6 \wedge s = s - \mathbb{k} \wedge$$

$$\mathbb{k}_{z_1} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})} \sum_{l_s+j_{sa}-k}^{l_s+j_{sa}-k} \frac{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}.$$

$$\sum_{n_i=n+l_k} \sum_{(n_{ik}=n+l_k+j_{sa}^{ik}-j_{ik})} \frac{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}.$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1})} \frac{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}.$$

$$\frac{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}{(n_{ik} - l_{ik} + n + j_{sa}^{ik} - D - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D \geq n < n \wedge l_s = D - n - 1 \wedge$$

$$j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{ik} + 1 \leq j_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - \mathbf{n} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(j_{ik} - j_{sa} - 1)!}{(l_{ik} - j_{ik} - \mathbf{n} - 1)! \cdot (j_{ik} - j_{sa} - 1)!} \cdot \\
& \frac{(D - j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z \mathcal{S}_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{(l_s+l_{sa}-j_{sa}^{ik})} \frac{(n_{ik}-j_{ik}-\mathbb{K}_1+1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{K}_2)!}{(j_{sa}-j_{sa}^{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{K}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{D + j_{sa} - \mathbf{n} - l_{sa}} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j_{sa}^{ik}-j_{sa})} \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+l_{sa}-k-s+1}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}-j_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j_{sa}+j_{sa}^{ik}-l_{sa})} \sum_{(j_{sa}=l_{sa}+j_{sa}^{ik}-k)}^{(l_s+l_{sa}-k)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_1-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(j_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_{ik}-n_{sa}-j_{ik}+\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - n_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j^{sa} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j_{sa}^{ik}-j_{sa})} \sum_{(j_{ik}=l_i+n+j_{sa}-D-s)}^{l_{ik}+j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(D > \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{sa}}^{I,SD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}=l_{sa}+n-k+1} \frac{\sum_{n_i=0}^n \sum_{n_{ik}=0}^{(n_i-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - l_{sa} - j_{sa}^{ik})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(n + j_{sa} - \mathbf{n} - s)!}{(n + j^{sa} - \mathbf{n} - s)! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{l_s=1}^{D+l_s-\mathbf{n}-l_i} \sum_{(l_{ik}=\mathbf{n}-1)}^{(l_{ik}-1)} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-D-s)}^{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{sa} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_i+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{sa}}^{()} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{sa})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i + n - l)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(n_i - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee
\end{aligned}$$

$$\begin{aligned}
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee
\end{aligned}$$

$$\begin{aligned}
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge
\end{aligned}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-l_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-l)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k} = \mathbb{k}_1 \vee \mathbb{k}_2 \Rightarrow$$

$$j_{sa}^{sa} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}_1+j_{sa}-j_{ik})}^{(n_{is}+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{j^{sa}=n_{ik}+j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa} - j_{sa}^{ik} - k - 1)!}{(j_{ik} + j_{sa} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(n - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{ik}^{ik} + 1 \leq j_{ik} < j^{sa} + j_{sa} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa})) \wedge
\end{aligned}$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+j_{sa}-j_{sa}^{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2+1)} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{n} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{i=1}^{D+l_s+s-\mathbf{l}_i} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j^{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{\mathbf{l}_i+j_{sa}-k-s+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(\mathbf{l}_{ik} - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(\mathbf{l}_{sa} + j_{sa}^{ik})! (\mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - \mathbb{k}_1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+\mathbf{n}-\mathbf{n}-\mathbf{l}_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(\mathbf{l}_s - k - 1)!}{(\mathbf{l}_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_{ik}, j_{sa}}^{DO} = \sum_{k=1}^{D-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ & \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - \mathbb{k}_2)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^i, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{ik})}^{(n_{is}+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{sa}-l_{ik}}^{()} \sum_{j^{sa}=n_{ik}-j^{sa}-l_{k2}}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(n - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n + j_{sa} - j^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(n - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & j_{ik}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee \end{aligned}$$

$$\begin{aligned} & (D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \end{aligned}$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}-k+\mathbf{n}-D)}^{\mathbf{n}+j_{sa}^{ik}-j_{sa}-1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_{sa}-k+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D-n+1} \sum_{(l_{ik}=k+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{l_{sa}-k+1} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_{sa}^{ik} - l_{k_2})!} \cdot \\
& \frac{(n_i - 1)!}{(n_i + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_{k_1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} - \\
& \sum_{l_i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_t \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j_{sa}+1}^{l_{ik}-j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}^{ik}-j_{sa}-k} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - j_{ik} - \mathbb{K}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{sa} - j_{ik})!}{(l_{ik} + j_{ik} - n_{sa} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}-k)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}^{(-k+1)} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-\mathbb{k}_2} \\ \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(j_{sa}-j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{sa}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\ \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i^{l+1})} \sum_{j_{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} - l_{ik})! \cdot (j_{sa}^{sa} - j_{sa}^{ik})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - a - s)!}$$

$$\sum_{k=1}^{i-1} (j_{ik} = j_{sa}^{ik} - j_{sa}^{ik-1}) \quad j_{sa}^{ik} = j_{ik} + j_{sa} - j_{s,i-1}$$

$$n_{is} + \mathbb{k} (n_{is} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik})$$

$$\sum_{n_{is}=n_{ik}+j_{sa}-j_{ik}-\mathbb{k}_1}^{n_{is}+j_{sa}^s-j_{sa}^i-\mathbb{k}_1} (n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2) \sum_{s=0}^{n_{sa}-n_{ik}-j_{ik}+j_{sa}-\mathbb{k}_2} \frac{(n_{is}-n_{ik}-j_{ik}+j_{sa}-s-j_{sa}^{ik}-I)!}{(n_i-n_{ik}-I)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - \mathbf{l}_i)!}{j^{sa} + s - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^K \sum_{l=1}^L \sum_{j_{sa}=j_{sa}} (j_{ik}=j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{\substack{() \\ n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1}}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \binom{l-1}{k} \sum_{j_{sa}=j_{sa}^{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}-\mathbb{K}_1+1} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right.$$

$$\sum_{k=1}^{i^l} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) \\
& \left(\sum_{k=1}^{i^{l-1}} (j^{sa} + j_{sa}^{ik} - j_{sa} - i_{ik} - j_{sa} - \mathbb{k}_1 + 1) \right. \\
& \quad \sum_{(j_{ik}=j_{sa}^{ik}+1)} \sum_{j^{sa}=j_{sa}+2}^{i_{ik}-j_{sa}-\mathbb{k}_2+1} \\
& \quad \sum_{n_i=\mathbf{n}+\mathbb{k}}^n (n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1) \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \quad \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \quad \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \quad \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \quad \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \quad \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \quad \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j^{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{\mathbf{l}_{sa}-k+1} \\
& \quad \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=i^l}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{i^{l+1}} \sum_{j^{sa}=j_{sa}+1}^{i^{l+1}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-l-1)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-\mathbb{k})! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{ik}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq \mathbf{n} - \mathbf{n} + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{ik} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \leq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \right.$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - j_{sa}^{lk} - 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{lk} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_{ik}=j_{sa}^{lk})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \Bigg) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_s+j_{sa}-k} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i^{l+1})} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{is}=n+\mathbb{k}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa} - n_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - j_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - n_{ik} - \mathbb{k}_2 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})}^{(l_{sa}+j_{sa}-k)} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{ik}-j_{sa})}^{(n_i-j_{sa}+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_i-j_{sa}+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_i-j_{sa}+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{lk})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}}^{()} \sum_{j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - 1 = l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^i < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s \leq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(n-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_i=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_{ik}-1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_{is}+j_{sa}^{ik}-j_{ik})} \cdot \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - j_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_{sa}+1)} \cdot \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}-j_{sa}+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}-j_{sa}+1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_i} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}^{ik}}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n-j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - s - n - l_i)!}{(n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - 1 \wedge$$

$$D \geq n < n - l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_2: j_{sa}^{ik} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \left(\sum_{k=1}^{l_i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{()} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{()} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{j_{sa}=j_{sa}^{ik}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \left. \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right)
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{i=0}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}-i^{l+1}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{l_{sa}-i^{l+1}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_{sa} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_{is} - j_{sa} - s)!} \cdot \\
& \sum_{k=i}^n \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{sa} + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq D - l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i \} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \right. \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left. \frac{(D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \right. \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right)
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(n_{sa} - l_{sa} - s + 1)} \sum_{l=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}^{ik}=l_{sa}+n-j_{sa}}^{(j_{ik} - j_{sa}^{ik})} \\
& \sum_{n_i=n+l_{sa}-j_{sa}-l_{ik}}^n \sum_{n_{ik}=n+l_{sa}-j_{sa}-l_{ik}}^{(j_{ik} - j_{sa}^{ik})} \sum_{n_{sa}=n-j_{sa}+1}^{(j_{ik} - j_{sa}^{ik})} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{ik} - l_{k_2} - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\
& \sum_{n_i=n+l_{k_1}}^n \sum_{(n_{is}=n+l_{k_1}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-l_{k_1}}^{(n_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{sa}-k-j_{sa}^{ik}+1)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - l_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right. \\ & \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \right). \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}+j_{sa}-k} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-l_{sa}-k+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-j_{ik}-j_{sa}^{ik}}^{j_{sa}^{ik}-l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_i-j_{ik}-\mathbb{k}_1+1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1)+1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - a)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_{sa})!} - \\
& \sum_{i=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(n+l_s+s-n-l_i)} \sum_{k=0}^{l_s+j_{sa}-k} \sum_{l_{sa}=n-D-s}^{(n+l_s+s-n-l_i)} \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \frac{(n_{sa} - j_{sa}^{ik} - l_{sa} - 1)!}{(n_{sa} - j_{sa}^{ik} - l_{sa} - 1)! \cdot (n_{sa} - j_{sa}^{ik} - l_{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - j_{sa}^{ik} - l_{sa} - 1)!}{(n_{sa} - j_{sa}^{ik} - l_{sa} - 1)! \cdot (n_{sa} - j_{sa}^{ik} - l_{sa} - 1)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{ik}-k+1)} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right. \\ \left. \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 2)! \cdot (n_{ik} - j_{ik} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \right. \\ \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}-l_{sa}+\mathbf{n}+j_{sa}^{ik}-j_{sa})!} \frac{l_{sa}-k+1}{j^{sa}=l_{sa}+n-D} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1))!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{ik}-j_{sa}^{ik})!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{ik}-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-l_{ik})! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - s > l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{sa} \leq l_s + l_{ik} + j_{sa} - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s \cdot \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2 - j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{n+j_{sa}^{ik}-j_{sa}-1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right) \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i}^n \sum_{l \mid (j_{ik}=j_{sa}^{ik})} \sum_{l_{sa}=l+1}^{l_{sa}-l+1} \frac{(n_i - j_{ik} - \mathbb{K}_1 + 1)}{(j_{ik} - \mathbb{K}_1 + 1)} \frac{(n_{ik} + j_{sa} - j_{sa}^{ik} - \mathbb{K}_2)}{(n_{ik} + j_{sa} - j_{sa}^{ik} - \mathbb{K}_2 + 1)} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - \mathbb{K}_1 + 1) \cdot (n_i - n_{ik} - \mathbb{K}_1 + 1)} \frac{(n_{ik} - j_{sa} - \mathbb{K}_2 - 1)!}{(n_{ik} + j_{sa} - j_{sa}^{ik} - \mathbb{K}_2 + 1) \cdot (n_{ik} + j_{sa} - n_{sa} - j_{sa}^{ik} - \mathbb{K}_2)!} \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j_{sa})!} \frac{(l_{sa} - j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j_{sa} - j_{sa}^{ik})!} \frac{(D + j_{sa} - l_{sa} - s)!}{(n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} \sum_{s=n-l_i}^{s=n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \frac{(l_s + j_{sa}^{ik} - k)}{(n_i - j_s + 1)} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})} \frac{(n_i - j_s + 1)}{(n_{is} - n + \mathbb{K} + j_{sa}^{ik} - j_{ik})} \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \frac{(l_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - I)!}{(n - I)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}}^{n, D} &= \sum_{k=1}^{l-1} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1} \\ &\sum_{i=n+\mathbb{K}}^n \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=1}^l \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}}^{l_{sa}-l+1} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l + j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - j^{sa} - \mathbf{n} - l_i - j_{sa})!}{(D + j^{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (n - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{l-1} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=i^l}^{(l_{sa}+j_{sa}^{ik}-i^l-j_{sa}+1)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_i - j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^l - 1)!}{(l_{ik} - j_{ik} - i^l - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{l=1}^{()} \sum_{j_{ik}=j_{sa}^{lk}} j_{sa}^{sa}$$

$$\sum_{n_i=n+l}^n \sum_{(n_{ik}=n_i-j_{ik}-l_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l - l_i - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - s \wedge l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = l > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, l_1, j_{sa}^i, \dots, l_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = l + l \wedge$$

$$l = l_1 + l_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)} (j^{sa} + j_{sa}^{lk} - j_{sa}) l_{ik} + j_{sa} - k - j_{sa}^{lk} + 1 \sum_{j_{sa}=j_{sa}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^l \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-i^{l+1})} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+l}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - l_{sa})! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l-1} - 1)!}{(l_{ik} - j_{ik} - i^{l-1} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - 1)!}{(j_{ik} + l_{k_1} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\sum_{i=1}^{\mathbf{l}} (j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}^{()}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - s \wedge l_i \leq D + s - \mathbf{n}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^1, \dots, \mathbb{k}_1, j_{sa}^{\mathbb{k}_1}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = \mathbf{n} + \mathbb{k} \wedge$$

$$I = \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(i^l - i^{l+1})} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa} - i^{l+1}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa} - i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} j_{sa}^{sa=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l-k-1)!}{(l+j_{sa}^{lk}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}^s+s-\mathbf{n}-l_i-j_{sa})! \cdot (\mathbf{n}-j_{sa}-j_{sa}^{sa}-s)!} \cdot \\
& \sum_{k=1}^{(\cdot)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}^{sa=j_{sa}}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik}-\mathbb{k})!}{(n_i-\mathbf{n}-\mathbb{k})! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq l_{sa} + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{lk} \leq j_{ik} - j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa}^{sa} + j_{sa}^{sa} - j_{sa}^{lk} + 1 \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{lk} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right.$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^{l-1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{ik} - i^{l-1} - l_{sa} - s)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}}^{l_{ik}+j_{sa}-i^{l-1}-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^{l-1} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^{l-1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + l_{ik} - j_{sa} - j_{sa}^{ik} + j_{sa}^{ik})!}{(j_{ik} + l_{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=i}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{l_{ik} + j_{sa} - i - j_{sa}^{ik} + 1} \frac{(j_{sa} + j_{sa}^{ik} - j_{sa} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_{ik} - 1)} \sum_{(n_{ik} = n - j^{sa} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - j_{ik} - \mathbb{k}_2 + 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i}^{l_{ik} - i - l + 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{l_{sa} - i - l + 1} \sum_{j^{sa} = l_{ik} + j_{sa} - i - l - j_{sa}^{ik} + 2} \frac{(l_{ik} - i - l + 1)!}{(j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - 1)!} - \\
& \sum_{k=1}^{\Delta} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{l_s+j_{sa}-k} \sum_{j_{sa}=1}^{l_s+j_{sa}-k} \\
& \sum_{i_s=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{\Delta} \sum_{i_l}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_{z=2}^{DOSD} = & \left(\sum_{k=1}^{n-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\ & \sum_{n=\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\ & \sum_{k=i}^{(l_{ik}-i+1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=1}^{l_{ik}-k} \sum_{(j_{ik}+j_{sa}^{ik}+1)}^{(l_{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}+j_{sa}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l_{ik}} - 1)!}{(l_{ik} - j_{ik} - i^{l_{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\lfloor \frac{D-l_i}{2} \rfloor} \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_{sa}=j_{sa}}^{(\cdot)}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{sa}^{ik} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{(l_{sa}-k-j_{sa}^{ik}+1)} \right. \\
& \quad \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(j_{ik}-j_{sa}^{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \quad \frac{(j_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \quad \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \quad \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \quad \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \quad \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \quad \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \quad \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}}^{l_{ik}} \sum_{l_{ik}=j_{sa}^{ik}-2}^{l_{ik}-k+1} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}+k+1} (j_{ik}=j_{sa}^{ik}-2) j^{sa} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^l \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1) l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(n_i + j_{sa} - n - s)!}{(n_i + j^{sa} - n - 1)! \cdot (n_i - j_{sa} - j^{sa} - s)!} + \\
& \sum_{i^l=j_{ik}-l_{ik}+n-D}^{(l_{ik}-i^l+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-i^l-j_{sa}^{ik}+2}^{l_{sa}-i^l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{j_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i + n - I)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - l_{sa} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(n + j_{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - j^{sa} \wedge$$

$$l_i - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} - n - j_{sa}^{ik} \wedge$$

$$D \geq n - 1 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, j_{sa}^i, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}-l_{sa}-j_{sa}^{ik}-1)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=i}^l \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{(j_{sa}=l_{sa}-i-l-j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \cdot \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - j_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^l \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-i-l+1)} \sum_{(j_{sa}=l_{sa}-i-l-j_{sa}^{ik}+2)}^{(l_{sa}-i-l+1)} \cdot \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_i=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - 1)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{j_{ik}=l_i+n_{ik}-j_{sa}^{ik}-D-s}^{j_{sa}^{ik}-k} \sum_{j_{sa}^{ik}=n_{sa}-j_{sa}^{ik}}^{j_{sa}^{ik}-D-s} j_{sa}^{ik} \cdot$$

$$\sum_{n_{is}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_{ik} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n_{ik} + \mathbf{n} - 1)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D > \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = \mathbf{s} + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik} j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{a=j_{sa}+1}^{l_{sa}-k+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{a=j_{sa}}^{l_{sa}-k+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{sa})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}-1, j_{sa})}^{()} \sum_{j_{sa}=j_{sa}^{ik}+1}^{j_{sa}^{ik}-k+1} \\ \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(j_{sa} - j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{j_{sa}^{ik}} \\ \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_{sa}=l_i+n+j_{sa}-D-}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}-j_{sa})}^{(n_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n_{is}+j_{sa}-j_{sa}^{ik}-j_{sa})}^{(n_{sa}-\mathbb{k}_2+1)}$$

$$\frac{(n_i + j_{sa} + j_{sa}^{ik} - j_{sa}^{ik} - s - j_{sa})!}{(n_i - n - l_i)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_i - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - n_{ik} - 1)!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}
 \end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{l_i-1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}} \sum_{(n_{is}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} -
 \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-1)!}{(n_i-n-1)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l_i - \mathbb{k}_1 > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_1, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq s = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2, \dots, l = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{sa}^{ik}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_{ik}-k+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_i-j_s+1)}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \sum_{k=0}^{l_i} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(j_{ik}-j_{sa}^{ik})} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbb{k}_1+\mathbb{k}_2+1)}^{(n_{ik}=\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_i)!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge \mathbf{n} + j_{sa}^{ik} - j_{sa} = l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s \leq \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, \mathbb{k}_1, j_{sa}^i - \mathbb{k}_1, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbf{s} = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_i - s)! \cdot (n_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-l)!}{(n_i-\mathbf{n}-l)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (l_i+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{()} \sum_{l_i}^{()} \sum_{j_{sa}=j_{sa}^{ik}}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{(n_{is}=n+l_k-j_{is}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_{sa}^{ik} - l_{k_1} - 1)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{is} - l_{k_2} - 1)!}{(j_{sa} - j_{ik} - l_{k_2} - 1)! \cdot (n_{ik} - n_{is} - j_{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{l_i}^{D+l_s+s-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_{z=2}^{j_{sa}} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{ik}+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik} - k + 1)!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l^{l-s}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1)} \sum_{(n_i=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}^{(n_i=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}$$

$$\sum_{(n_i=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}^{(n_i=\mathbf{n}+l_i+l_s+l_{sa}-D-s)} \sum_{(n_{ik}=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}^{(n_{ik}=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}$$

$$\sum_{(n_{ik}=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}^{(n_{ik}=\mathbf{n}+l_i+l_s+l_{sa}-D-s)} \sum_{(n_{ik}=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}^{(n_{ik}=\mathbf{n}+l_i+l_s+l_{sa}-D-s)}$$

$$\frac{(j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} - l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$D + s - \mathbf{n} - l_i \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}^{ik}-s}^{l_i+j_{sa}-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{n_{ik} - j_{ik} - \mathbb{K}_2 - 1} \sum_{l=0}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2} \sum_{s=0}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2} \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - l - k + 1)! \cdot (n_{ik} - n_{sa} - j_{ik} - \mathbb{K}_2 + 1)!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_1}^n \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1}^{n_i - j_{ik} - \mathbb{K}_2 - 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - l - k + 1)! \cdot (n_{ik} - n_{sa} - j_{ik} - \mathbb{K}_2 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{n_{is}=\mathbf{n}+\mathbb{K}_2+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} + 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=l_s+j_{sa}^{ik}-k+1)}^{l_i+j_{sa}^{ik}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - j_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\substack{(\quad) \\ (j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}, j_{sa}=l_i+n+j_{sa}-\mathbb{k}_1)}} \sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-\mathbb{k}_1)}} \frac{(l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-\mathbb{k}_1)}} \frac{(l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\sum_{\substack{(\quad) \\ (j_{sa}=l_i+n+j_{sa}-\mathbb{k}_1)}} \frac{(l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{ik} + j_{ik} - n_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n_{sa} - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq n - n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_s+j_{sa}^{ik}-k)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_{ik}-l_k+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n+l_k+j_{ik}-j_{sa}^{ik}-l_k)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-l_k)} \\
& \frac{(n_i - n_{ik} - l_{k_1})!}{(j_{ik} - l_{k_1} - 1)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - l_{k_2} - 1)!}{(j^{sa} - l_{k_2} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_s+j_{sa}^{ik}-k)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k_1}}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_s^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s \leq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_2 = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{(j^{sa}=j_{sa}^{ik}+j_{sa}-k-j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot \\
& \frac{(j_{ik} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (j_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(j_{sa} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (j_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^{l+1}} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - a)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{sa}-k-j_{sa}^{ik}+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-\mathbb{k}_1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{(j_{sa}-k-j_{sa}^{ik}+1)} \sum_{j^{sa}=j_{sa}}^{(j_{sa}-k-j_{sa}^{ik}+1)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(j_{sa}-k-j_{sa}^{ik}+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(j_{sa}-k-j_{sa}^{ik}+1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(n_i - \mathbf{n} - \mathbb{k})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_2: \mathbb{Z} > 2 \wedge \mathbb{K} = \mathbb{K}_1 - \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{sa}-j_{sa}^{ik}+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-1)} \sum_{n_{ik}=n+j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1)!}{(j_{ik} - \mathbb{K}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(j^{sa} - \mathbb{K}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{sa}-j_{sa}^{ik}+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1}^{(n_{ik}-j_{sa}^{ik}-\mathbb{K}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\sum_{k=1}^n \sum_{l=1}^n (j_{ik} = j_{sa}^{ik}) j^{sa} = j_{sa}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n (n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1) n_{sa} \dots j_{sa}-\mathbb{K}_2$$

$$\frac{(n_i+j_{ik}+j_{sa}-j^{sa}-j_{sa}-\mathbb{K})!}{(n_i-\mathbf{n}-\mathbb{K})! \cdot (n_i+j_{ik}+j_{sa}-s-j_{sa})!} \dots$$

$$\frac{(D-s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}{(D-s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} + j_{ik} - \mathbf{n} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - l_{ik} + 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{()} j_{sa}^{ik} = l_{sa} + n - D - s$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{ik} = n + \mathbb{K} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - l_{ik} - j_{sa} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - l_{ik} - j_{sa} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + j^{sa} - n - l_{sa}} \sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa})}^{()} \sum_{j_{sa}^{ik} = l_{ik} + n + j_{sa} - D - s}^{l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{K}_1}^n \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z \leq 2 \wedge \mathbb{K} = \mathbb{K}_1 \vee \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i l-1} \frac{(l_{sa} + \mathbf{n} + j_{sa}^{ik} - D - j_{sa} - 1)}{(j_{ik} = j_{sa}^{ik} + 1)} \frac{l_{sa} - k + 1}{j_{sa} = l_{sa} + \mathbf{n} - D} \\ &\sum_{n_i = \mathbf{n} + \mathbb{K}}^n \frac{(n_i - j_{ik} - \mathbb{K}_1 + 1)}{(n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1)} \frac{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}{n_{sa} = \mathbf{n} - j^{sa} + 1} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(l_{ik}-k+1)}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - j_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^l+1}$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} - l_{ik})! \cdot (j_{sa}^{sa} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\sum_{k=1}^{D+L_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-L_s)}^{(l_{ik}-k+1)} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}^{ik-1}}^{j_{sa}^{ik-1}+1} \dots$$

$$n_{is} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik}$$

$$\sum_{s+j_{sa}^s-j_{sa}^{ik}} \sum_{\substack{(\cdot) \\ (n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}}$$

$$\frac{(n_i - n_{ik} - I)! \cdot (n_i + j_{ik} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - n_{ik} - I)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - \mathbf{l}_i)!}{(n + j^{sa} + s - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} = j_{sa} \wedge$$

$$j_{ik} \wedge j_{sa} \wedge j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + s = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{S}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{ik}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^{l-1} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-i^{l+1})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i + n - I)! \cdot (n + l_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \wedge D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, j_{sa}^i, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - l_i)! \cdot (\mathbf{n} - j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s = l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + j_{sa} - \mathbf{n} - 1$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\}$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k},$$

$$\mathbb{k}_2: z = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}. \end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{l_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_{ik} = l_i + \mathbf{n} + j_{sa}^{ik} - D - s) \atop (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} - 1) \atop (n_{sa} = \mathbf{n} - j^{sa} + 1)}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}_2 - j_{ik} - 1}^{\mathbf{n} - j_{ik} - \mathbb{k}_2 - 1} \sum_{n_{is} = \mathbf{n} + \mathbb{k}_2 - j_{ik} - 1}^{\mathbf{n} + \mathbb{k}_2 - j_{ik} - 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{\mathbf{n} - j^{sa} + 1}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D + l_s + s - \mathbf{n} - l_i} \sum_{(l_s + j_{sa}^{ik} - k) \atop (j_{ik} = l_i + \mathbf{n} + j_{sa}^{ik} - D - s)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}_2}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k}_2 + j_{sa}^{ik} - j_{ik}) \atop (n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - I)!}{(n_i - \mathbf{n} - I)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - n - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-i-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-1)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-l_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n-1)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{ik} \leq n + l_s + j_{sa}^{ik} - \mathbf{n} - j_{sa} \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbb{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbb{l}_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{l-1} \sum_{(j_{ik}=\mathbb{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbb{l}_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - i-l-j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i-l+1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
 \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-1)!}{(n_i-n-l)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} - s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}+j_{sa}-k} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(j_{ik} + l_{sa} - j_{sa} - l_{ik})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+j_{sa}-k+1}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{l_{sa}} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{\mathbb{k}_1}, \dots, \mathbb{k}_2, j_{sa}^{\mathbb{k}_2}, \dots, j_{sa}^i\} \wedge$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k}.$$

$$\mathbb{k}_2 : z = \mathbb{k}_1 + 1, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i l-1} \frac{(l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1)}{(j_{ik} = j_{sa}^{ik} + 1)} \frac{l_{sa} - k + 1}{j_{sa} = l_{sa} + n - D} \\ &\sum_{n_i = n + \mathbb{k}}^n \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)}{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)} \frac{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}{n_{sa} = n - j^{sa} + 1} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}. \end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!} +$$

$$\sum_{k=1}^{i l-1} \frac{(j_{sa}^{ik} - k)!}{(n_{sa} + j_{sa}^{ik} - D - j_{sa})!} \sum_{l_{sa}=k+1}^{l_{sa}-k+1} \frac{j_{sa}^{ik}}{j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-i l+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - l_i - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+n_{ik}^{ik}-D-s)}^{(l_s+j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{ik}+n_{ik}^{ik}-D-s)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - \mathbf{n} - l)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((\mathbf{n} - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa}^{ik} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{ik} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$D \geq n < n \wedge l = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik_1}, \mathbb{K}_1, j_{sa}^{ik_2}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 6 \wedge s = \mathbb{K}_1 + \mathbb{K}_2 \wedge$$

$$\mathbb{K}_2: \mathbb{K}_1 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_{ik}} \sum_{j_{ik}=l_{ik}-k+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^n \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-i)l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i)l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_i - 1)!}{(n_i - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
& \frac{(l_{ik} - j_{ik} - i)l - 1)!}{(l_{ik} - j_{ik} - i)l - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$j_{sa} \in \{j_{sa}^i, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z^{SDOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{l_{ik}-l+1} \sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}^{ik}-j_{sa}^{ik}-j_{sa}^{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}-j_{sa}^{ik}-j_{sa}^{ik}}^{l_{sa}-l+1}$$

$$\sum_{n_i=n+l}^n \sum_{n_{ik}=n+l}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n+l}^{(n_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - n_{ik} - l_{k_1} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa}^{ik} - l_{k_2})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{sa} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}}^{(l_s+j_{sa}^{ik}-k)}$$

$$\sum_{n_i=n+l}^n \sum_{n_{is}=n+l+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & f_z S_{j_{ik}, j_{sa}}^{DOS} \sum_{k=1}^{l_i} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D)}^{l_i+j_{sa}-i^{l-s}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}, \quad l_i+l_i+n+j_{sa}-D-s)}^{()} \sum_{l_s=l_s-a-k}^{l_s} \sum_{(n_i-j_s)}^{(n_i-j_s)} \sum_{(n_{is}+l_k+j_{sa}^{ik}-j_{ik})}^{(n_{is}+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k1}, \quad n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k1}, \quad n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k2})} \\
& \frac{(n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n - n - 1)! \cdot (n + j_{sa} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - n - 1 \wedge$$

$$j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$$

$$l_{ik} - j_{ik} + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - l_i \leq l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$n \leq l_s \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z^{DOSD} S_{j_{ik}, j^{sa}} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_{ik} - l + 1)} \sum_{(j_{ik} = l_{ik} + n - D)}^{l_{ik} + j_{sa} - l - s + 1} \sum_{j^{sa} = l_{ik} + j_{sa} - D - s}^{j_{sa} - l - s + 1}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{ik} = n + \mathbb{K} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j^{sa} - l_{ik} - n_{ik} - \mathbb{K}_1 + 1)!}$$

$$\frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - l_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D + l_s + j_{sa} - n - l_{sa}} \sum_{(j_{ik} = l_{ik} + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{K}_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l)!}{(n_i - n - l)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

GÜLDÜNYA

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right. \\ & \quad \sum_{n=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_{ik}=n+l_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \\ & \quad \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \quad \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \end{aligned}$$

$$\left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right)$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-k+1} \frac{(l_s + j_{sa}^{ik} - k)!}{(j_{ik} - j_{sa}^{ik} - \mathbf{n} + j_{sa}^{ik} - D - 1)!} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(l_s+j_{sa}^{ik}-k)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} + j_{sa})!} \cdot \\
& \frac{(n - j_{sa} - 1)!}{(n_i + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - 1)!}{(l_{ik} - j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - n_{sa} - s)!}{(D + j_{sa} - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) - \\
& \sum_{l_i=0}^{D+l_s+s-l_{sa}-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-\mathbf{l}_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=\mathbf{l}_s+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{(\mathbf{l}_s-j_{ik}-k)} j^{sa} = j_{ik}+j_{sa}-j_{sa}^{ik} \\ & \sum_{n=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) + \\ & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-\mathbf{l}_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=\mathbf{l}_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_{sa}-k+1} \right) \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+j_{sa}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} + j_{sa})!} \cdot \\
& \frac{(n - j_{sa} - 1)!}{(n_i + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - 1)!}{(l_{ik} - j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) - \\
& \sum_{s=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right. \\ \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right).$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(j_{ik} + k - j^{sa} - l_{ik})!}{(j_{ik} + k - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}-D) \cdot j^{sa}=n-D}^{(l_{ik}-k+1)} \sum_{j_{sa}^{ik}=n-k+1}^{(j_{sa}^{ik}-k+1)} \\
& \sum_{n_i=n+l_{ik}-j_{sa}^{ik}+1}^n \sum_{(n_i-j_{ik}-1) \cdot (n_{ik}+j_{ik}-l_{sa}-j_{sa}^{ik})}^{(n_i-j_{ik}-1)+1} \sum_{(n_{ik}+j_{ik}-l_{sa}-j_{sa}^{ik})}^{n_{ik}+j_{ik}-l_{sa}-j_{sa}^{ik}-l_{sa}+1} \\
& \frac{(n_i - j_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l_{ik}-j_{sa}^{ik}+1}^n \sum_{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{sa}-1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{sa}-1)}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^i \leq j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s - \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right.$$

$$\sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) \\
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-l_{sa}-k+1)} \sum_{j^{sa}=l_{sa}+n-j_{sa}^{ik}-k+1}^{l_{sa}-k+1} \right. \\
& \quad \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{ik_2}-j_{ik}+1)}^{(j_{ik}-l_{ik_2})} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \quad \frac{(n_i - l_{ik} - 1)!}{(j_{ik} - l_{ik_2} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \quad \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \quad \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \quad \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \quad \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \quad \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \quad \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=D+l_{sa}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}}^{D-\mathbf{n}+j_{sa}-l_{sa}-j_{sa}^{ik}} \sum_{j_{ik}=l_{ik}+1}^{j_{ik}-k+1} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{j_{sa}-1} \cdot \\
& \sum_{n_i=\mathbf{n}+l_{sa}+j_{sa}-l_{ik}-k+1}^{\mathbf{n}} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_i-j_{sa}-l_{ik}-k_1+1)} \sum_{n_{ik}=j_{ik}-j^{sa}-k_2}^{n_{ik}+j_{ik}-j^{sa}-k_2} \cdot \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-j_{sa}^{ik}-j_{ik}-1)! \cdot (\mathbf{n}-j_{sa}-j_{sa}^s-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} = l_i \wedge l_{sa} - s > j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_s+\mathbf{n}+j_{sa}-D-1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}
\end{aligned}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_s+l_{sa}-k)} \sum_{(n_i=n+l_k)}^{(n_i=n+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1})}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}-j_{sa}^{ik}-l_{k_2})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}-j_{sa}^{ik}-l_{k_2})}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}-j_{sa}^{ik}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - l_{k_1} - l_{k_2})! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_i \leq D - \mathbf{n} - 1 \wedge$$

$$j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{ik} + 1 = j^{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^i \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} + j^{sa})!} \cdot \\
& \frac{(n - n_{sa} - 1)!}{(n_i + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - 1)!}{(l_{ik} - j_{ik} - n - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_s+s-n} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(l_i+j_{sa}-1)}^{()} \sum_{(l_i+\mathbf{n}+j_{sa}-D-s)}^{()} \\ & \sum_{(n_i=\mathbf{n}+\mathbb{k}_1)}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_2)}^{\mathbf{n}} \sum_{(n_{sa}=\mathbf{n}-j_{sa}+1)}^{\mathbf{n}} \sum_{(n_{sa}=\mathbf{n}-j_{sa}+1)}^{\mathbf{n}} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \\ & \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik})}^{l_s+j_{sa}-k} \\ & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=\mathbf{n}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 =$$

$$f_z^{DOSD} j^{sa} = \sum_{i=1}^{D-s+1} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} j^{sa} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2-\mathbb{k}_1)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j_{sa}+s-n-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k}_1 + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - j_{sa}^i \wedge j_{sa}^s - j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: \mathbb{k}_2 + 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+l_{sa}} \sum_{(j_{ik}=l_{sa}-j_{sa}^{ik}-D-l_{sa}+k)}^{(l_{sa}+j_{sa}^{ik}-k)} \sum_{(j^{sa}=l_{sa}+j_{sa}-k+1)}^{l_{sa}+j_{sa}-s+1} \\
& \sum_{n_i=n+l_{sa}-(n_{ik}-n+l_{sa}-j_{ik}+1)}^n \sum_{(n_i-j_{ik}-l_{sa}+1)}^{(n_i-j_{ik}-l_{sa}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{sa}+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n+j_{sa}-D-s}^{l_{sa}+j_{sa}-k-j_{sa}^{ik}+1}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} = l_i \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{ik} \leq j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s - \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{i-1}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 4 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_{z_1} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n_{is}=n+l_s+j_{sa}^{ik}-k-1)} \\
& \sum_{n_i=n+l_s+j_{sa}^{ik}-k-1}^n \sum_{n_{ik}=n+l_s+j_{sa}^{ik}-k-1}^{(j_{ik}-j_{sa}^{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{is}-j_{sa}^{ik}-1)} \\
& \frac{(n_i - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_s}^n \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (l_i+j_{sa}-j^{sa}-s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa}^i \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, j_{sa}^i\} \wedge$$

$$\geq 4 \wedge j_{sa}^i \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 = \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{D-n+1} \frac{(l_{sa} - k)!}{(j_{ik} - l_{sa} - k)!} \cdot \frac{(l_{sa} - k + 1)!}{(j_{ik} - l_{sa} - k + 1)!} \cdot \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_{sa}-j_{ik}+1}^{n_i-j_{ik}-l_{sa}-1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{sa}} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - l_i)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{ik} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_i \wedge (l_{ik} - j_{sa}^{ik} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_i \wedge (l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 2 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbf{s} + \mathbb{K} \wedge$$

$$I = \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{j_{ik}=l_{sa}-D+1}^{D-l_{sa}} \sum_{j_{sa}^{ik}=j_{sa}-D+1}^{(l_s+j_{sa}^{ik})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - \mathbb{k}_1)!}{(l_s + j_{sa}^{ik} - j_{ik})! \cdot (j_{ik} + j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - \mathbf{n} - \mathbb{k}_1)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D > \mathbf{n} \leq n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_{sa}+n-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik})}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n+j_{sa}+1)}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_{ik}-j_{ik}+1)!} \cdot \frac{(j_{sa}-n_{ik}-1)!}{(j_{sa}-n_{ik}-1)! \cdot (n_{ik}+j_{ik}-j_{sa})!} \cdot \frac{(n_{sa}-n_{sa}^{sa}-n-1)!}{(n_{sa}-n_{sa}^{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{sa}-k-j_{sa}^{ik})!}{(l_{sa}-j_{sa}^{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{sa}-s)!} \cdot \sum_{k=1}^{l_{sa}+j_{sa}-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{sa}+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_{sa}+1)} \sum_{n_{ik}=n_{is}+j_{sa}^{sa}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_{sa}-k-1)!}{(l_{sa}+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^i, \mathbb{K}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + 1 \wedge$$

$$\mathbb{K}_Z: Z \geq 2 \wedge \mathbb{K} = \mathbb{K}_1 + 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \end{aligned}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D, j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)}$$

$$\sum_{(n_i=n+\mathbb{k}, n_{ik}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_{sa}^{ik})}$$

$$\sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1, n_{is}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_i-j_{sa}^{ik})}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i + j_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa}^{ik} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge I = \mathbb{k} > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}^s+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(l_{ik}=j_{sa}-k-j_{sa}^{ik}+1)}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{sa}^{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=\mathbf{n}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \\ & \frac{(n_i - n_{sa} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - j_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(\mathbf{n} + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \\ & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j_{sa}^s+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(l_s+j_{sa}-k)}^{l_s+j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{()} \\ & \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik})!} \end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^s\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i+\mathbb{k}+1)} \sum_{(n_{ik}=n_{ik}+j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(j_{ik} + j_{sa}^{ik} - j^{sa} - k - 1)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + l_i - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} + j_{sa}^{ik} - j^{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbf{s} + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-1)} \\ \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\ \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ \frac{(l_{ik}+j_{sa}^{ik}-l_{sa}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\ \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\ \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{(j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2)}^{(l_i+j_{sa}-k-s+1)} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{\substack{() \\ (j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}, j_{ik}-j^{sa}-l_i+l_{sa}-D-s)}}^{l_s-j_{sa}-k} \sum_{n=\mathbf{n}+\mathbb{k}}^{(n_i-j_s)} \sum_{\substack{() \\ (n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1, n_{ik}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}}^{(n_i-j_s)} \\
& \frac{(n_i + j_{ik} - l_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i + j_{ik} - l_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+l_{sa}-D-s}^{(l_i+j_{sa}-k-s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(l_i+j_{sa}-k-s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - a - s)!}$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} (l_s+j_{sa}^i-k) \sum_{(j_{ik}=l_i+n+j_{sa}^i-k-D-l_{sa})} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}}$$

$$n_{l+1} = n_{l+1} + \mathbb{k} (n_{iS} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik})$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{ik}^i, k=1} \sum_{(n_{sa}=n_{ik}+j_{ik}^i-j_{sa}^s-k_2)} \quad ()$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(\mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n \wedge n \wedge l_s > D) \rightarrow n + 1 \wedge$$

$$j_{sa}^{ik} + j_{ik}^{sa} \leq j_{ik}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - \mathbf{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$-j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sq} - j_{sq}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sq} - s \wedge$$

$$l_{ik} - j_{sq}^{ik} + 1 = l_s \wedge l_{sq} + j_{sq}^{ik} - j_{sq} > l_{ik} \wedge l_i + j_{sq} - s > l_{sq}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOS} = \sum_{k=1}^{D-n} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} + j_{sa} - n - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik})!}{(j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik})!} \cdot \frac{(l_{ik} - j_{sa})!}{(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$s = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{d=1}^{D-j_{sa}+1} \sum_{(j_{ik}=j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j_{sa}^s+s-n-l_s-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \geq l_{ik} \wedge$$

$$l_{sa} \leq n + j_{sa} - n \wedge l_{ik} \leq D + s - n \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{ik} - 1 \wedge j_{sa}^{ik} \leq j_{ik} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq j_{sa}^s = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^{l-1} \binom{j_{sa}^{ik} - k}{j_{sa}^{ik} - k}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+1} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^l \binom{j_{sa}^{ik}}{j_{sa}^{ik}}} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}-i^{l+1}} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa}^{ik} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{lk})}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_j^{SD} = & \sum_{k=1}^{(l_s + j_{sa}^{ik} - k)} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{l_{sa} - k + 1} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \\ & \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}} (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 - \mathbb{k}_2 \Rightarrow$$

$$Z_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} +$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}^{ik}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - j_{ik} - k + 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{il-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}-l_{ik})}^{()} \sum_{(j_{sa}=j^{sa}+j_{sa}^{ik}-j_{sa}-l_{ik})}^{()} \frac{l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1}{(n_i-j_{sa}-l_{sa})!} \cdot \\
& \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{sa}-l_{ik})}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_{ik})}^{()} \frac{(n_i-j_{sa}-l_{sa})!}{(n_i-n-l_{sa}-l_{ik})! \cdot (n+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{il} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{i_{ik}, j_{sa}}^{DOSD} = \left(\begin{matrix} \mathbf{l}-1 \\ \sum_{k=1}^{\mathbf{l}} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}}^{\mathbf{l}-k} \sum_{j_{sa}=j_{sa}+1}^{\mathbf{l}_s+j_{sa}-1} \end{matrix} \right) \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{\mathbf{l}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j_{sa}=j_{sa}}^{(\quad)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot \\
& \left(\sum_{k=1}^{i l-1} \sum_{(j_{ik} - j_{sa}^{ik} + 1)}^{(j^{sa} + j_{sa}^{ik} - 1)} \sum_{j^{sa} = j_{sa}^{ik} - k}^{l_{sa} - k} \right. \\
& \left. \sum_{n_i = n + \mathbb{K}_1}^n \sum_{(n_{ik} = n + \mathbb{K}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2} \right) \\
& \frac{(n_i - j_{ik} - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i l-1} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{(l_{sa} + j_{sa}^{ik} - k)} \sum_{j^{sa} = l_{sa} + j_{sa}^{ik} - k + 1}^{l_{sa} - k + 1} \\
& \sum_{n_i = n + \mathbb{K}_1}^n \sum_{(n_{ik} = n + \mathbb{K}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{i^{l+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \cdot \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \cdot
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}^s+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j_{sa}^s=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}-j_{sa}^{lk}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^s + 1 \leq j_{ik} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right.
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^l \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l - k - 1)!}{(l + j_{sa}^{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa} + j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right. \\ \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{()} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} + j_{ik} - k - 1)!}{(l_{ik} + j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{ik} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{i_l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i - j_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i_l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n + l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-l_{sa}-j_{sa}^{ik}+1} \binom{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}{j_{ik}-j_{sa}} \sum_{j_{sa}=l_{sa}+n-D}^{n_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right)$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-k+1} \sum_{j_{sa}^{ik}=l_{ik}}^{l_{sa}-k+1} \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_{sa}-j_{ik}+1}^{n_i-j_{ik}-l_{sa}+1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{sa}+2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}^{ik}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2-\mathbb{k}_1)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-j_{sa}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n)!}{(D+j^{sa}+s-n-j_{sa}-j_{sa}^{ik}-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - 1 \geq l_{ik} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq j_{ik} + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq j_{sa}^s = s + \mathbb{k}_1 + 1$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{s=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{sa}^{ik}=1}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^D \sum_{i=1}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}} \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)!}{(n_{ik} = \mathbf{n} + \mathbb{k} - j_{ik} + 1)!} \frac{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!}{(n_{sa} = \mathbf{n} + \mathbb{k} + j_{sa}^{ik} - j_{ik})!}.$$

$$\frac{(n_i - j_{ik} - 1)!}{(n_i - \mathbf{n} - \mathbb{k} - j_{ik} + 1)!}.$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ &\quad \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\quad \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-k)}^{(l_{ik}-k+1)} \sum_{(j_{sa}=j_{ik}-\mathbf{n}-j_{sa}^{ik})}^{(n_{sa}-j_{sa}-j_{ik})}$$

$$\sum_{(n_i=\mathbf{n}+\mathbb{k})}^{(n_i-s)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_{sa}-\mathbf{n}-\mathbb{k}-j_{sa}^{ik}-j_{ik})}$$

$$\sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)}^{(n_{ik}-s)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{sa}-\mathbf{n}-\mathbb{k}_1-j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{sa}^{ik} + j_{sa} - j^{sa} - \mathbb{k}_1 - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - s - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa}^{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa}^{ik} - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} - 1 \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - j_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$\mathbf{n} \geq \mathbf{n} - 1 \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{lk}-D-j_{sa})}^{(l_s+j_{sa}^{lk}-k)} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{i l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_s+j_{sa}^{lk}-k)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \frac{(l_{sa} - l_{i+1})!}{(j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot \sum_{j_{ik}=l_i+n+1}^{l_{sa}-l_{i+1}} \sum_{j_{sa}^{ik}=n-D}^{n-j_{ik}-l_{sa}-1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n-j_{ik}+1)}^{(n_i-j_{ik}-l_{sa}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (n_i+j_{sa}-j^{sa}-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\},$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$_{fz} S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{\binom{()}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}} \sum_{l_{sa}=k+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{\binom{(n_i-j_{ik}-\mathbb{k}_1+1)}{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=j_{sa}}^{l_{sa}-i^l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}+j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - j_{ik} - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_i - j_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_i - n_{sa} - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} - \\
& \sum_{k=1}^{i^l-1} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=\mathbf{n}_{ik}}^{()} \sum_{j^{sa}=\mathbf{n}_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq \mathbf{n} + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{l_1}, \dots, j_{sa}^{l_r}\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=0}^{l_{sa} + j_{sa}^{ik} - l - j_{sa}^{sa} - 1} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} - 1}$$

$$\sum_{n_i = n - j_{ik} - j_{sa}^{ik} - 1}^n \sum_{n_{ik} = n_{ik} - j_{ik} - j_{sa}^{ik} - 1}^{n_{ik} - j_{ik} - j_{sa}^{ik} - 1} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{sa} = n - j^{sa} + 1}$$

$$\frac{(n_i - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{\substack{(j_{ik} = j_{sa}^{ik}) \\ a = j_{sa}}} \sum_{\substack{n_i = \mathbf{n} + \mathbb{k} \\ (n_{ik} = \mathbb{k}_1 + 1) \\ n_{sa} = \mathbf{n} + j_{ik} - j^{sa} - \mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + \mathbf{n} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n})$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + \mathbf{n} > l_s \wedge$$

$$(l_{ik} - j_{sa} + \mathbf{n} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge (D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-\mathbf{l}_{sa}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(j_{ik}+l_{sa}-j^{sa}-l_{ik})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=i^l}^{(l_{ik} - i^l + j_{sa} - i^l + 1)} \sum_{j_{ik}=j_{sa}}^{(j_{ik} - j_{sa})} \sum_{j_{sa}=j_{sa}}^{(j_{sa} - j_{sa})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_1}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_2}^{(n_{ik} + j_{ik} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik})!}{(n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{\substack{(j_{ik} = j_{sa}^{ik}) \\ a = j_{sa}}} \sum_{\substack{n_i = \mathbf{n} + \mathbb{k} \\ (n_{ik} = \mathbb{k}_1 + 1) \\ n_{sa} = \mathbf{n} + j_{ik} - j^{sa} - \mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + \mathbf{n} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n})$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + \mathbf{n} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge (j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}} \\
 & \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\
 & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-j_{sa}^{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
 & \frac{(l_{sa}-i^l-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=i^l}^{(l_{ik}-i^l+1)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^l+1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-i^l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i l - 1} \sum_{(j_{ik}=j_{sa}^{ik}+1, \dots, j_{ik}=j_{sa}^{ik}-j_{sa}^{ik})} \sum_{(n_i-j_s+1, \dots, n_i-j_s+1)} \sum_{(n+l_k, \dots, n+l_k)} \sum_{(n_{is}=n_{is}+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}, \dots, n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}^{ik}=j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i l-1} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}+1}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{sa}-j_{sa}-1} \right) \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=i l}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=j_{sa}+2}^{j_{sa}+j_{sa}^{ik}-k-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=n+l-k_1}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_{ik}=j_{ik})} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - l_{k_1} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+l_{k_1}}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^n \sum_{l=i}^n \sum_{j_{sa}=j_{sa}+1}^{(j^{sa}+j_{sa}^{ik}-1)l_{ik}+j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)l_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_{ik}-i^{l+1}} \sum_{(j_{ik}=j_{sa}^{lk})}^{l_{sa}-i^{l+1}} \sum_{j^{sa}=l_{ik}+j_{sa}-i^{l-j_{sa}^{lk}+2}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l-j_{sa}^{lk}} - 1)!}{(l_{ik} - j_{ik} - i^{l-j_{sa}^{lk}} - 1)! \cdot (j_{ik} - j_{sa}^{lk} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j^{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{lk}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{lk} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{lk})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{lk} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{lk} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}}}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 - \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_1}^n \sum_{n_{ik}=n+l_2-j_{ik}+1}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+l_1}^n \sum_{n_{ik}=n+l_2-j_{ik}+1}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \right)
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=i}^{l_{ik}-l+1} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-l+1} \sum_{(j_{sa}=j_{sa}^{ik}+1)}^{n_{ik}+j_{ik}-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_i=n_{ik}+1)}^{(n_i-j_{ik}-j_{sa}^{ik}+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_2)}^{n_{ik}+j_{ik}-j_{sa}^{ik}+1} \\
& \frac{(n_i - n_{ik})!}{(n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_2+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\sum_{k=0}^{\binom{n}{\mathbf{n} + \mathbb{k}_1 + \mathbb{k}_2}} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{a=j_{sa}}^{\binom{n}{\mathbf{n} + \mathbb{k}_1 + \mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} >$$

$$D + j_{sa} - \mathbf{n} < l_s \leq D + j_{sa}^{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^{ik}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbf{n} + \mathbb{k} \wedge$$

$$\mathbf{n} = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D + l_{ik} + j_{sa} - \mathbf{n} - l_{sa} - j_{sa}^{ik} + 1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=\mathbf{i}l}^{(j^{sa} + j_{sa}^{ik} - j_{sa} - 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{l_{ik} + j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1} \sum_{(j^{sa} = l_{sa} - D)}^{j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{(n_{sa} = \mathbf{n} - j^{sa} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - \mathbf{i}l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{i}l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\mathbf{i}l}^{(l_{ik} - \mathbf{i}l + 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{l_{sa} - \mathbf{i}l + 1} \sum_{(j^{sa} = l_{sa} - \mathbf{i}l - j_{sa}^{ik} + 2)}^{l_{sa} - \mathbf{i}l + 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{(n_{sa} = \mathbf{n} - j^{sa} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{ik}-k+1)} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right) \end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}-l_{sa}+n+j_{sa}^{ik}-j_{sa})!} \frac{l_{sa}-k+1}{j^{sa}-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_{i_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{sa}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + \mathbf{l} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{j^{sa}+j_{sa}^{ik}-l_{sa}-1} \sum_{l_{ik}=\mathbf{l}}^{l_{ik}+\mathbf{n}-D} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-\mathbf{l}-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - \mathbf{l} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{l} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{(l_{ik}-i^{l+1})} \sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}-i^{l+1}} \sum_{j_{sa}=l_{ik}+j_{sa}-i^{l-j_{sa}^{ik}+2}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j_{sa} - n - \mathbb{k}_2)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)!}{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) - \\
& \sum_{s=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{j_{sa}^{sa-k+1} = j_{sa}^{sa} + j_{sa}^{sa-k+1} - j_{sa}}^{()} \sum_{j_{sa}^{sa} = j_{sa} + 1}^{()} \sum_{n_i = \mathbf{n} + \mathbb{K}}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{(n_i - n_{ik} - 1)!} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{()} \sum_{j_{ik} = j_{sa}^{ik}}^{()} \sum_{j_{sa}^{sa} = j_{sa}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{l_{sa}-k+1} \sum_{j_{sa}+1}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}+1}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}}^{D, D} &= \sum_{k=1}^{l-1} \sum_{l=jsa+j_{sa}^{ik}-jsa}^{(\quad)} \sum_{jsa=jsa+1}^{l_{sa}-k+1} \\ &\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i=j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-jsa+1}^{n_{ik}+j_{ik}-jsa-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=1}^{(\quad)} \sum_{l(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{jsa=j_{sa}} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - l_{sa})! \cdot (n - j_{sa})!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}-k+1}^{j_{sa}-k+1} \sum_{j_{sa}=l_i}^{j^{sa}-D-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1) (n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i - n - j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - n - j_{sa} \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{sa}-l_{k_1}}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{k_1} \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - l_i - j_{sa} - (n + j_{sa} - j_{sa}^{ik} - s))!} - \\
& \sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=n+l_k}^{()} \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n - l_s \leq D - n + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}^{i_1}+j_{sa}^{i_1}-j_{ik})}^{(n_{is}^{i_1}+1)}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{i_1}-j_{sa}-\mathbb{k}_2}^{()} \sum_{j_{sa}^{i_1}=n_{ik}+j_{sa}-\mathbb{k}_2}^{()} (n_i + j_{ik} + j_{sa}^{i_1} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{i_1} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(n_i + j_{ik} + j_{sa}^{i_1} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{i_1} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(n_i + j_{ik} + j_{sa}^{i_1} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{i_1} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i \}$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} - j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-1)! \cdot (\mathbf{n}+j_{ik}-j^{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}-j_{sa}^{lk}-1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq \mathbf{n} - \mathbf{n} + 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{lk} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} - l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
 \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-j_{sa}^{sa}-j_{sa}^{ik}-l_i)! \cdot (\mathbf{n}-j_{sa}-j_{sa}^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s > -1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^{ik}\} \wedge$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k} \wedge$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} j^{sa} =$$

$$\sum_{n_i=\mathbb{k}_1}^n (n_{ik}=\mathbf{n}+\mathbb{k}_1-j_{ik}+1) \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2} (n_{sa}=\mathbf{n}+j_{sa}^{ik}+1)$$

$$\frac{(n_i - j_{ik} - 1)!}{(j_{ik} - \mathbb{k}_1 - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1))$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s - \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{i-1}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}-j_{sa}^{ik}-1)}^{(l_{ik}-k-1)} \sum_{(n_i=n+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_{ik}-j_{sa}^{ik}-l_{k_2})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}-j_{sa}^{ik}-j_{ik}+1)} \\
& \frac{(n_i - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-j_{sa}^{ik}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_i+j_{sa}-i^{l-s+1})} \\
& \sum_{n_i=n+l_{k_1}}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (n_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}-j_{sa}+k-j_{sa}^{ik})} \sum_{(j_{sa}=n_{ik}+j_{ik}-j^{sa}+1)} \sum_{(j_{sa}=n_{ik}+j_{ik}-j^{sa}-s)} \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})} \\
& \sum_{(k=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k_1})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i + j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D - l_i) \leq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{sa}}^{DQSD} = \sum_{k=1}^{iL-1} \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s} \sum_{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_i+j_{sa}-k-s+1} \sum_{n_i=\mathbf{l}_i-k-\mathbb{K}_1+1}^n \sum_{n_{ik}=\mathbf{n}-j_{ik}+1}^{(n_i-\mathbf{l}_i-k-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{iL-1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1}^{\mathbf{l}_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^n \sum_{l=0}^{l_i+j_{sa}-i^{l-s}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{j_{ik}=j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik})! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-s-1)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{i_1} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i_1} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^{i_1}\} \wedge$$

$$s \geq n \wedge s = s +$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j^{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^{l-1} - (j_{sa}^{ik} - k)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+j_{sa}-s+1} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_i+j_{sa}-s+1} \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_{k2}-j_{ik}+1}^{(n_i-j_{ik})_{k_1+1}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - j^{sa} - s)!}{(l_s + j^{sa} - \mathbf{n} - l_i - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} S_{j_{ik}, j_{sa}}^{sa} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}^{ik}-s}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{ik} + k)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \sum_{k=0}^{(n_{ik} - j_{sa}^{ik})} \sum_{l=0}^{(j_{sa}^{ik} - l - s + 1)} \sum_{j_{sa}^{ik} - D - s}^{(n_{ik} - j_{sa}^{ik} - l - s + 1)} \sum_{n_i = n + \mathbb{K}}^n \sum_{n_{ik} = n_{sa} - j_{ik} + 1}^{(n_i - j_{ik} - \mathbb{K}_2)} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \sum_{k=1}^{D + l_s + s - n - l_i} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{(n_i - j_s + 1)} \sum_{n_i = n + \mathbb{K}}^n \sum_{n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik}}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^{ik} - j_{sa}^s, j_{sa}^i, j_{sa}^i\} \wedge$$

$$s \leq 4 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)} (j^{sa}+j_{sa}^{ik}-j_{sa}) l_{ik}+j_{sa}-k-j_{sa}^{ik}+1 \sum_{j^{sa}=j_{sa}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \sum_{j_{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n - 1)!}{(n + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{sa}-i} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(l_{sa}-i)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(l_{sa}-i)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}} (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^l \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-l_{ik}+1)} \sum_{j^{sa}=j_{sa}}^{l_{sa}-l_{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l - k - 1)!}{(l + j_{sa}^{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D > \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$+ j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{i,k,j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-k+j_{sa}-k-j_{sa}^{ik}+1)} \sum_{j_{sa}=n-D}^{n-D} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{sa}-j_{ik}+1)}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{sa}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-j_{sa}-j_{sa}^{ik}-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1)$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n - l_i \leq l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$l_i \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
 \end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - l_{ik} + 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{(l_{sa} - l_{ik} + 1)} \sum_{j_{sa} = l_{sa} + n - D}^{(l_{sa} - l_{ik} + 1)}$$

$$\sum_{n_i = n + \mathbb{K}_1}^n \sum_{(n_{ik} = n + \mathbb{K}_1 + j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i - j_{ik} - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_i - j_{ik} - 1)!} \cdot$$

$$\frac{(n_{sa} - j_{sa} - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=1}^{l_{sa} - l_{ik} + 1} \sum_{(j_{ik} = l_{ik} + n + j_{sa}^{ik} - D - s)}^{(l_{ik} - k + 1)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{K}_1}^n \sum_{(n_{is} = n + \mathbb{K}_1 + j_{sa}^{ik} - j_{ik})}^{(n_i - j_{sa} + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{K}_1}^{(n_i - j_{sa} + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2)}^{(n_i - j_{sa} + 1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}}^{DO} &= \sum_{i=1}^{l-1} \sum_{j_{ik}=\mathbf{n}-D}^{(i-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(i-k+1)} \\ &\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_i} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-i^{l+1})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l+1} - 1)!}{(l_{ik} - j_{ik} - i^{l+1} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{s=1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+j_{sa}-k-s+1}^{l_i+j_{sa}-k-s+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+n+j_{sa}-D-s} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^l \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+j_{sa}-l^{l-s+1}}^{l_i+j_{sa}-l^{l-s+1}} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+n+j_{sa}-D-s} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{k=0}^{l_s+j_{sa}-k} \binom{l_s+j_{sa}-k}{j_{sa}^{ik}-j_{sa}} \cdot \\
& \sum_{i=n+l_k}^{(n_i-j_s+1)} \sum_{i=n+l_k}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{n+l_k} \cdot \sum_{i=n+l_k}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{n+l_k} \cdot \\
& \sum_{k=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})} \binom{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2}}{k=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k1}} \cdot \\
& \frac{(n_i + j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k1} - l_{k2})!}{(n_i - n_{ik} - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=i^l}^{(\mathbf{l}_i+j_{sa}^{ik}-i^l-s+1)} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \end{aligned}$$

$$\frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n=n+\mathbb{k}}^n \sum_{(n_{is}=n)}^{(n_i+\mathbb{k}+1)} (j_{ik})$$

$$\frac{\sum_{n_{il}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1}^{(n_i+j_{ik}+j_{sa}^{ik}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + l_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n - l_{sa} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}+j^{sa}-\mathbf{n}-1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_s + j_{sa})!}{(l_{ik} - j_{ik} - l_s + j_{sa} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa} - l_{sa} - s)!}{(l_s + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-l_{sa})}^{(l_s+j_{sa}-k)} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(l_i - j_{sa}^{ik} + 1) \leq n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_{sa}+j_{sa}^{ik}-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})} \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}+j_{sa}-\mathbf{n}-1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{(l_{sa}+j_{sa}^{ik}-l-j_{sa}+1)} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa}^{ik} - s)!}{(l_s + j_{sa}^{ik} - \mathbf{n} - l_i - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_{ik}=l_i+n_{ik}-D-s}^{D+l_s+s-\mathbf{n}-l_i} \sum_{j_{sa}^{ik}=l_s+j_{sa}^{ik}-D-s}^{(l_s+j_{sa}^{ik}-D-s)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{ik}=l_i+n_{ik}-D-s)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(l_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j}^{D_0} &= \sum_{i=0}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{ik}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i - j_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - \mathbb{k}_1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$(D + s - \mathbf{n} < l_i \leq D + l_i + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_{sa})!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - n_{sa} - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{sa} - k - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{(j_{ik} - j_{sa}^{ik} - 1)} \sum_{j_{sa} = l_{sa} + n - j_{ik} - j_{sa}^{ik} - k + 1}^{(j_{ik} - j_{sa}^{ik} - 1)}$$

$$\sum_{n_i = n + l_{sa} - j_{ik} - j_{sa}^{ik} - k + 1}^n \sum_{n_{ik} = n + l_{sa} - j_{ik} - j_{sa}^{ik} - k + 1}^{(j_{ik} - j_{sa}^{ik} - 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{(j_{ik} - j_{sa}^{ik} - 1)}$$

$$\frac{(n_i - j_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_{sa}}^n \sum_{(n_{is}=n+l_{sa}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{sa} - l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{ik} - l + 1} \sum_{j_{ik}=l_{ik}+k-1}^{(j_{ik}-l_{ik}+1)} \sum_{j^{sa}=l_{sa}+n-l_{ik}+1}^{(j^{sa}-l_{sa}+1)} \\
& \sum_{n_i=n+l_{ik}-j_{ik}}^n \sum_{n_{ik}=n+l_{ik}-j_{sa}-j_{ik}}^{j_{ik}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}-j_{sa}-l_{ik}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - l_{ik} + 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq l_s + l_{sa} + j_{sa} - j_{sa}^{ik} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}-D}^{l_{sa}-k+1} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} +$$

$$\sum_{k=i^l}^{(l_{ik} - i^l + 1)} \sum_{j_{sa}^{ik} = l_{sa} - i^l + 1}^{n_{sa} - j_{sa}^{ik}} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\sum_{k=n+l_k}^n \sum_{j_{sa}^{ik} = n_{sa} - j_{sa}^{ik} + 1}^{n_{sa} - j_{sa}^{ik}} \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - i - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - i - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i + j_{sa} - s = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + j_{sa} - \mathbf{n} - 1$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{ik}\} \wedge$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k}$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!} + \\
& \sum_{k=0}^{l-1} \sum_{j_{ik}=l_{ik}+n-D}^{(n_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+n-j_{ik}-k-s+1}^{(n_{sa}-k-s+1)} \frac{(j_{sa}^{ik} - j_{ik} - k + 1)!}{(j_{sa}^{ik} - j_{ik} - k + 1)!} \cdot \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_{ik_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{ik_2}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{l-1} \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-l+1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{(l_i+j_{sa}-l^{l-s}+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - j_{sa} - l_s - j_{sa}^{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik} - j_{sa}^{sa} - l_{ik} - j_{sa}^{sa} - j_{sa}^{sa})!} \cdot \\
& \frac{(n_i + j_{sa} - \mathbf{n} - s)!}{(n_i + j_{sa} - \mathbf{n} - 1)! \cdot (n_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{n_{ik}=\mathbf{n}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-j_{sa})}^{(j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{(j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1)}^{(\mathbf{l}_i+j_{sa}-k-s+1)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{ik} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa}^{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1}^{\mathbf{l}_i+j_{sa}-k-s+1} j_{sa}^{ik}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_{ik}-i^k+1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l_s-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \geq l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - j_{sa}^i \wedge j_{sa}^s - j_{sa}^{ik} - 1 \wedge$$

$$s: (j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i) \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: \mathbb{k}_2 \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right. \\
& \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{ik})}^{(n_i-\mathbb{k}_1+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{()} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + l_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{ik}^{ik} + 1 \leq j_{ik} < j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge \mathbb{k} = \mathbb{k} > \mathbb{k} \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq s \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{(j_{ik}+j_{sa}^{ik}-l_{sa}-j_{sa}^{ik})} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D+l_s+s-\mathbf{n}-l_i)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}=l_i+\mathbf{n}+j_{sa}^{ik}-D+l_s+s-\mathbf{n}-l_i)}^{(j_{ik}+j_{sa}^{ik}-j_{sa})}$$

$$\sum_{(n_i=j_{ik}+j_{sa}^{ik}-j_{sa}-l_i-\mathbf{n}-j_{sa}^{ik}+D-l_s-s+\mathbf{n}+l_i)}^{(n_i-j_{sa}^{ik}-j_{sa}-l_i-\mathbf{n}-j_{sa}^{ik}+D-l_s-s+\mathbf{n}+l_i)} \sum_{(n_{is}=j_{ik}+j_{sa}^{ik}-j_{sa}-l_i-\mathbf{n}-j_{sa}^{ik}+D-l_s-s+\mathbf{n}+l_i)}^{(n_{is}-j_{sa}^{ik}-j_{sa}-l_i-\mathbf{n}-j_{sa}^{ik}+D-l_s-s+\mathbf{n}+l_i)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-l_i-\mathbf{n}-j_{sa}^{ik}+D-l_s-s+\mathbf{n}+l_i)}^{(n_{ik}-j_{sa}^{ik}-j_{sa}-l_i-\mathbf{n}-j_{sa}^{ik}+D-l_s-s+\mathbf{n}+l_i)} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} - j_{sa} - j^{sa} - l_i - \mathbf{n} - j_{sa}^{ik} + D - l_s - s + \mathbf{n} + l_i - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - j_{sa}^{ik} - j_{sa} - l_i - \mathbf{n} - j_{sa}^{ik} + D - l_s - s + \mathbf{n} + l_i - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^{ik} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{lk})}^{l_{ik}+j_{sa}-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik})! (n_{sa} - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}+j_{sa}^{lk}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right)$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}=l_{ik}+n-D) \cdot (j_{sa}=l_{ik})} \frac{(l_{sa}-k+1)!}{j_{sa}^{ik}+2} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_{i_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_{sa}^{ik} - (n_i - n_{ik} - j_{ik} - l_{k_1} + 1))!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_i - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - l_{sa} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(\mathbf{n} + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{j_{ik}=\mathbf{n}+j_{sa}-j^{sa}-l_i}^{D+l_s+\mathbf{n}-l_i} \sum_{j_{sa}^{ik}=\mathbf{n}+j_{sa}-j^{sa}-l_i}^{(\mathbf{n}+j_{sa}-j^{sa}-l_i)} \sum_{j_{sa}^{ik}=\mathbf{n}+j_{sa}-j^{sa}-l_i}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\mathbf{n}_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < \mathbf{n} \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{(D+\mathbf{l}_{ik}-j_{sa}-\mathbf{n}-\mathbf{l}_{sa}-j_{sa}^{ik}+1)} \\ & \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-l_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n+\mathbb{k}-j_{sa}+1)}^{(n_{ik}+j_{sa}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1 - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - \mathbb{k}_2 - 1)! \cdot (n_{sa} + j_{ik} - j^{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(n_{sa} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{i=1}^{D-n+1} \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_s+n+j_{sa}-D-1}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_s+j_{sa}-k}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-1)!}{(D+j_{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa}^s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}
\end{aligned}$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D}^{l_i+j_{sa}-k-s+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{is}=\mathbf{n}+j_{sa}+1)}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(j_{sa} - j_{ik} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - j_{sa} - \mathbf{n} - 1)!}{(n_{sa} - j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_s - k - j_{sa}^{ik})!}{(l_s - j_{sa} - \mathbf{n} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \\ & \sum_{k=1}^{D+l_s-j_{sa}-l_{sa}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\ & \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\ & \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_{ik}, j_{sa}}^{DOS} \sum_{i=1}^{D-n+1} \sum_{j_{ik}=l_i+n-j_{sa}^{ik}-D-s}^{j_{sa}^{ik}-k-s} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}^{ik}-k-s} \\ & \sum_{i=n+\mathbb{k}}^{(n_i-n_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \end{aligned}$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} = l_i \wedge l_{ik} + l_i - j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_{z_1} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-s, j^{sa}=l_s+j_{sa}-k+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(n_i=n+l_k, n_{is}=n+l_k+j_{sa}^{ik}-j_{ik}+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+l_k+j_{sa}^{ik}-j_{ik}+1)}^{(n_{ik}-j_{sa}-l_{ik}+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}-j_{sa}-l_{sa}+1)} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j^s < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$S_{j_{ik}-2}^{DO} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2)}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2}$$

$$\frac{(n_{ik} - n_{ik} - \mathbb{K}_1)!}{(j_{ik} - \mathbb{K}_1)! \cdot (n_{ik} - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_{is}=n+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = j_{sa} - \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-s, j_{sa}=l_s+j_{sa}-k+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(n_i=n+l_k, n_{is}=n+l_k+j_{sa}^{ik}-j_{ik}+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_{is}-j_{sa}-1)} \sum_{(n_{ik}=n+l_k+j_{sa}^{ik}-j_{ik}-1)}^{(n_{ik}-j_{sa}-1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}-j_{sa}-1)} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa}^i \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^{ik}\} \wedge$$

$$\geq 5 \wedge j_{sa}^{ik} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k}_Z = \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{D-n+1} \frac{(l_{sa} - k)!}{(l_{sa} - k + 1)!} \cdot \frac{(j_{ik} - j_{sa}^{ik} - k)!}{(j_{ik} - j_{sa}^{ik} - k + 1)!} \cdot \frac{(n_{sa} - k)!}{(n_{sa} - k + 1)!} \cdot \\
& \sum_{n_i=n+1}^n \sum_{n_{ik}=n_{sa}+1}^{n_{ik}-j_{ik}-l_{sa}^{ik}+1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{sa}^{ik}} \frac{(n_i - n_{ik} - l_{sa}^{ik} - 1)!}{(j_{ik} - l_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - l_{sa}^{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - j_{sa}^{ik} - j_{ik} - l_i)! \cdot (n - j_{sa} - j^{sa} - s)!}.$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \bigg) \wedge$$

$$(n - n) \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j^s < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$S_i^{DO} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} (n_i - j_{ik} - \mathbb{K}_1 + 1) \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i+l_i+1)} \\
& \sum_{n=n+l_k}^n \sum_{(n_{is}=n-l_i-l_k)}^{(n_i+l_i+1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_k-l_1)}^{(n_i+l_i+1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_k-l_2)}^{(n_i+l_i+1)} \\
& \frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - l_{sa} - l_{ik} - l_i - l_k - l_1 - l_2)!}{(n_i - n - l_k - l_1 - l_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa}^{ik} - j^{sa} - k - 1)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + l_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
& ((D \geq n < n + 1 \wedge l_s = D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} + j_{sa}^{ik} - j^{sa} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n + 1 \wedge l_s = D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge \\
& D \geq n < n + 1 \wedge l = k > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge
\end{aligned}$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=\mathbf{l}_{ik}+\mathbf{n}+j_{sa}-D-j_{ik}^{ik}+1}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-1}^{n_{ik}+j_{ik}-j^{sa}-1} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(j^{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
 & \sum_{i=1}^{D+l_s+s-\mathbf{l}_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOS} &= \sum_{k=1}^{D-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{j_{ik}-k+1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ &\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-\mathbf{n}-l_s-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - \mathbf{n} - l_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - \mathbf{n} - l_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s, \{j_{sa}^{i-1}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1-j_{ik})}^{(n_i-\mathbb{k}_1+1)}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2}^{(\quad)} \sum_{j^{sa}=\mathbf{n}+j_{sa}-D-s}^{(\quad)} (n_{ik} - j^{sa} - \mathbb{k}_2)!}{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i + j_{sa} - j^{sa} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\begin{aligned} & ((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\ & j_{ik}^{ik} + 1 \leq j_{ik}^{ik} < j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\ & l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee \end{aligned}$$

$$\begin{aligned} & (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\ & j_{sa}^{ik} + 1 \leq j_{ik}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \end{aligned}$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n-j_{sa}-D-s-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{ik} + j_{sa}^{ik} - l_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D, j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)}$$

$$\sum_{(n_{is}=n+l_s, n_{ik}=n+l_s+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-\mathbb{k}_1, n_{ik}=n+l_s+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-\mathbb{k}_1, n_{ik}=n+l_s+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-\mathbb{k}_1, n_{ik}=n+l_s+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} - j_{sa} - j^{sa} - l_{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i + j_{ik} - j_{sa} - j^{sa} - l_{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} - l_i - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + j_{sa} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}))$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_{sa}^{ik}}^{SD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - j_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - \mathbf{n} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{l_i=\mathbf{n}}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s; \{j_{sa}^s, \dots, j_{sa}^{ik_1}, j_{sa}^{ik_2}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_{k+2} = 2, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{sa}+j_{sa}^{ik}-D-j_{sa}^{ik})}^{(l_{ik}-k-j_{sa}^{ik})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{ik}-k-j_{sa}^{ik})} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa}^{ik}-j_{ik}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} = l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq \mathbf{n} + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}-\mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq \mathbf{n} \wedge s = s + \mathbb{k},$$

$$\mathbb{k}_2: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} +$$

$$\sum_{k=1}^{l_{sa} - j_{sa}^{ik} - l_{sa} - k + 1} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{n_{ik} = n_{ik} - j_{ik} + 1}^{n_i - j_{ik} - \mathbb{k}_1 + 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1 - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - j_{sa}^{ik} - l_{sa} - k + 1} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{sa}^{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l-1-j_{sa}^{ik})} \sum_{j_{sa}^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}^{lk}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{lk})}^{(\quad)} \sum_{j_{sa}^{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_j^{SD} j_{sa}^{ik} &= \sum_{k=1}^{(l_s + j_{sa}^{ik} - k)} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{l_{sa} - k + 1} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \\ &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^{l+1}} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{sa} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}} (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 - \mathbb{k}_2 \Rightarrow$$

$$DOSD_{j_{ik}, j^{sa}} = \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right)$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} (n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_2} \\
& \frac{(n_i - n_{ik} - l_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_2} \\
& \frac{(n_i - n_{ik} - l_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right)
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}^{ik}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \\ \frac{(l_{ik} - j_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{il-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}-l_{ik})}^{(l_{ik}+j_{sa}^{ik}-j_{sa}-l_{ik}+1)} \sum_{(j_{sa}=j^{sa}+j_{sa}^{ik}-j_{sa}-l_{ik})}^{(n_i-j_{sa}-l_{ik})} \\
& \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{ik}-l_{ik_1})}^{(n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{ik_2})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{ik_2})}^{(n_i-j_{sa}-l_{ik})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{ik_1} - l_{ik_2})!}{(n_i - n - l_{ik_1} - l_{ik_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{il} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}+j_{sa}^{ik}-j_{sa}-l_{ik}+1)} \sum_{j_{sa}=j_{sa}}^{(n_i-j_{sa}-l_{ik})} \\
& \sum_{n_i=n+1}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{ik_1}+1)}^{(l_{ik}+j_{sa}^{ik}-j_{sa}-l_{ik}+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{ik_2}}^{(n_i-j_{sa}-l_{ik})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{ik_1} - l_{ik_2})!}{(n_i - n - l_{ik_1} - l_{ik_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{i_{ik}, j_{sa}}^{DOSD} = & \binom{\mathbf{l}-1}{\sum_{k=1}^{\mathbf{l}} j_{sa}^{ik} = j_{sa} + j_{sa}^i} \binom{\mathbf{l}_s + j_{sa} - \mathbf{l}}{\sum_{k=1}^{\mathbf{l}_s} j_{sa}^{ik} = j_{sa} + 1} \\ & \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \\ & \frac{(n_i - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa} - \mathbb{k}_1 - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{\mathbf{l}} \binom{(\quad)}{j_{ik} = j_{sa}^{ik}} \sum_{j_{sa}^{ik} = j_{sa}} \sum_{j_{sa}^{ik} = j_{sa}} \\ & \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \cdot \\
& \left(\sum_{k=1}^{i\mathbf{l}-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}^{ik}+1)} \sum_{j^{sa}=\mathbf{l}_s+j_{sa}-k}^{\mathbf{l}_s+j_{sa}-k+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i\mathbf{l}-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(\mathbf{l}_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=\mathbf{l}_s+j_{sa}-k+1}^{\mathbf{l}_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{i^{l+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \cdot \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \cdot
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j_{sa}^s=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}-j_{sa}^{lk}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} = D + j_{sa} - \mathbf{n}$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^s + 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^s - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^s - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{sa}}^{(l_{sa}-k+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right.
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^{\binom{D}{i}} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i+1} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l - k - 1)!}{(l + j_{sa}^{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa} + j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right. \\ \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{()} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} + j_{ik} - k - 1)!}{(l_{ik} + j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{i l - 1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-l_{k_1}}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - k)!} \cdot \frac{(j_{ik} - j_{sa}^{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i - j_{sa}^{ik} - l_{k_1} - l_{k_2})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n + l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \frac{(n_i - n_{ik} - \mathbb{K}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) +$$

$$\left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \right)$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-k+1} \sum_{j_{sa}^{ik}=l_{ik}}^{l_{sa}-k+1} \frac{(n_i - j_{ik} - l_{ik} - \mathbb{k}_1)!}{(j_{ik} - l_{ik} - \mathbb{k}_1)!} \frac{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}{n_{sa} = n - j^{sa} + 1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{sa}-j_{ik}+1)} \sum_{n_{sa}=n-j^{sa}+1} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - l_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}^{ik}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2-\mathbb{k}_1)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-j_{sa}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n)!}{(D+j^{sa}+s-n-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - 1 \geq l_{ik} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq j_{ik} + j_{sa} - l_{sa} - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{ik} - 1 \wedge j_{sa}^{ik} = j_{ik} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq l_s, s = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{s=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{sa}^{ik}=1}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - l_{ik} + 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{()} j_{sa}^{sa} = l_{sa} + n - D - s$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{ik} = n + \mathbb{K} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - n_{ik} - \mathbb{K}_1 + 1)!}.$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=1}^{D + j^{sa} - n - l_i} \sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa})}^{()} \sum_{j_{sa}^{sa} = l_i + n + j_{sa} - D - s}^{l_s + j_{sa} - k}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{s} - j_{sa}^{ik} - \mathbb{K}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{(j_{sa}=j_{ik}-j_{sa}-j_{sa}^{ik})}^{(n_{sa}-j_{sa}-j_{sa}^{ik})}$$

$$\sum_{(n_i=\mathbf{n}+\mathbb{k})}^{(n_i-\mathbf{n}-\mathbb{k})} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_{sa}-\mathbf{n}-\mathbb{k}-j_{sa}^{ik}-j_{ik})}$$

$$\sum_{(n_{ik}=\mathbf{n}_{is}+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{ik}-\mathbf{n}_{is}-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=\mathbf{n}_{sa}+j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{sa}-\mathbf{n}_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{sa}^{ik} + j_{sa} - j^{sa} - \mathbb{k}_1 - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa}^{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa}^{ik} - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} - 1 \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - j_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - s \leq l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$\mathbf{n} \geq \mathbf{n} \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{lk}-D-j_{sa})}^{(l_s+j_{sa}^{lk}-k)} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{i l-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_s+j_{sa}^{lk}-k)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \frac{(l_{sa} - l_{i+1})!}{(j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot \sum_{j_{ik}=l_i+n+1}^{l_{sa}-l_{i+1}} \sum_{j_{sa}^{ik}=n-D}^{l_{sa}-l_{i+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{i+1}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_{i+1} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - l_{i+1})! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$_{fz} S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}+j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - n_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i^l-1} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=0}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq \mathbf{n} + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} -$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i - 1, j_{sa}^i\} \wedge$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=0}^{l_{sa} + j_{sa}^{ik} - l - j_{sa}^{ik} - 1} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n - j_{sa}^{ik} - l_{sa} - k_1}^n \sum_{n_{ik} = n + l_{sa} - j_{sa}^{ik} - k_1}^{n - j_{sa}^{ik} - l_{sa} - k_1} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - k_2}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - k_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{a=j_{sa}}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1+1)}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + s > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + s > l_s \wedge$$

$$(l_{ik} - j_{sa} + s > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge (D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(j_{ik} + l_{sa} - j^{sa} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=i^l}^{(l_{ik} - i^l + l_{sa} - i^l + 1)} \sum_{j_{ik}=j_{sa}}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}^{ik}}^{(j_{sa} - j_{sa}^{ik})} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{n_{ik}=n_{ik}-\mathbb{k}_1}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa}=n - j_{sa} + 1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{is}=n+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\mathbf{n}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}^{ik}}^{\mathbf{n}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1+1)}^{\mathbf{n}} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\mathbf{n}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + \mathbf{n} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n})$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + \mathbf{n} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge (j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(j_{ik} + l_{sa} - j_{sa} - l_{ik})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=i^l}^{(l_{ik}-i^l+1)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^l+1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-i^l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i l - 1} \sum_{(j_{ik}=j_{sa}^{ik}+1, \dots, j_{ik}=j_{sa}^{ik}-j_{sa}^{ik})} \sum_{(n_i-j_s+1, \dots, n_i-j_s+1)} \sum_{(n+l_k, \dots, n+l_k)} \sum_{(n_{is}=n_{is}+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}, \dots, n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(j_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}^{ik}=j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i\mathbf{l}-1} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}}^{\binom{\mathbf{l}_{ik}+j_{sa}-i\mathbf{l}-j_{sa}^{ik}+1}{(n_i-j_{ik}-\mathbb{k}_1+1)}} \sum_{j_{sa}=j_{sa}+1}^{\mathbf{l}_{ik}+j_{sa}-i\mathbf{l}-j_{sa}^{ik}+1} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{sa}-j_{sa}-1} \right) \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=i\mathbf{l}}^{\binom{\mathbf{l}_{ik}+j_{sa}-i\mathbf{l}-j_{sa}^{ik}+1}{(n_i-j_{ik}-\mathbb{k}_1+1)}} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}}^{\mathbf{l}_{ik}+j_{sa}-i\mathbf{l}-j_{sa}^{ik}+1} \sum_{j_{sa}=j_{sa}+1}^{\mathbf{l}_{ik}+j_{sa}-i\mathbf{l}-j_{sa}^{ik}+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=j_{sa}+2}^{j_{sa}+j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_{ik}=j_{ik})} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_{ik}=j_{ik})} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^n \sum_{l=i}^n \sum_{j_{sa}=j_{sa}+1}^{(j^{sa}+j_{sa}^{ik}-1)l_{ik}+j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)l_{ik}+j_{sa}^{ik}-1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_{ik}-i^{l+1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^{l+1}} \sum_{j^{sa}=l_{ik}+j_{sa}-i^{l-j_{sa}^{ik}+2}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)!}{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\sum_{i=1}^n} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}}{}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_k \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 - \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \right)
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=i}^{l_{ik}-l_{sa}^{ik}+1} \sum_{l=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-j_{sa}^{ik}+1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=n_{ik}-\mathbb{k}_1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\sum_{k=1}^{\mathbf{n}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(\mathbf{n})} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_1+1)}^{(\mathbf{n})} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\mathbf{n})} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge \mathbf{n} + j_{sa}^{ik} - j_{sa}^{ik} >$$

$$D + j_{sa} - \mathbf{n} < l_s \leq D + \mathbf{n} + j_{sa}^{ik} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik} - \mathbb{k}_1, j_{sa}^{ik} - 2, j_{sa}^{ik}, \dots, j_{sa}^{ik}\} \wedge$$

$$s \geq 5 \wedge s = \mathbf{n} + \mathbb{k} \wedge$$

$$\mathbf{n} - \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k + 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=\mathbf{i}l}^{(j^{sa} + j_{sa}^{ik} - j_{sa} - 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D, j^{sa} = l_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1)} \Delta_{\mathbf{i}l - j_{sa}^{ik} + 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_{ik} - 1)} \sum_{(n_{ik} = \mathbf{n} - j^{sa} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - \mathbf{i}l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{i}l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\mathbf{i}l}^{(l_{ik} - \mathbf{i}l + 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{l_{sa} - \mathbf{i}l + 1} \sum_{j^{sa} = l_{ik} + j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 2}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{ik}-k+1)} j_{sa}=j_{ik}+j_{sa}^{ik} \right. \\ \left. \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right. \\ \left. \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \right. \\ \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\ \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\ \left. \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}-l_{sa}+n+j_{sa}^{ik}-j_{sa})!} \frac{l_{sa}-k+1}{j^{sa}-l_{sa}+j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{ik}=n_{i_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{ik}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - l_{k_1})! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + {}_i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k={}_i l - j_{sa}^{ik} - l_{ik} + \mathbf{n} - D}^{(j^{sa} + j_{sa}^{ik} - l_{sa} - 1)} \sum_{l_{ik}+j_{sa}-{}_i l-j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-l_{sa}-1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - {}_i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - {}_i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{(l_{ik}-i)^{l+1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{l_{sa}-i^{l+1}} \sum_{j_{sa}=l_{ik}+j_{sa}-i^{l-j_{sa}^{ik}+2}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)!}{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(l_{sa} + j_{sa} - l_{ik} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) - \\
& \sum_{s=1}^{D+l_s+s-i-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{sa}^{sa-k+1} = j^{sa} + j_{sa}^{sa-k+1} - j_{sa}}^{()} \sum_{j_{sa}^{sa-k+1} = j^{sa} + j_{sa}^{sa-k+1} - j_{sa}} (n_i - j_{sa}^{sa-k+1} - \mathbb{K}_1 + 1) \sum_{n_{ik} = n + \mathbb{K} - j_{sa}^{sa-k+1} - \mathbb{K}_2}^{n_{ik} + j_{ik} - j_{sa}^{sa-k+1} - \mathbb{K}_2} \sum_{n_{sa} = n - j_{sa}^{sa-k+1}}^{n_{sa} = n - j_{sa}^{sa-k+1}} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{sa}^{sa-k+1} - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{l-1} \sum_{j_{sa}^{sa-k+1} = j^{sa} + j_{sa}^{sa-k+1} - j_{sa}}^{()} \sum_{j_{sa}^{sa-k+1} = j^{sa} + j_{sa}^{sa-k+1} - j_{sa}} (n_i - j_{sa}^{sa-k+1} - \mathbb{K}_1 + 1) \sum_{n_{ik} = n + \mathbb{K} - j_{sa}^{sa-k+1} - \mathbb{K}_2}^{n_{ik} + j_{ik} - j_{sa}^{sa-k+1} - \mathbb{K}_2} \sum_{n_{sa} = n - j_{sa}^{sa-k+1}}^{n_{sa} = n - j_{sa}^{sa-k+1}} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{sa}^{sa-k+1} - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - j_{sa})!} \cdot \\
& \sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{l_{sa}-k+1} \sum_{j_{sa}+1}^{()} \\
& \sum_{n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}}^{D, D} = & \sum_{k=1}^{l-1} \sum_{i=1}^{()} \sum_{j_{sa}^{sa} = j_{sa}^{ik} - j_{sa}}^{l_{sa} - k + 1} \\ & \sum_{i=\mathbf{n} + \mathbb{K}}^n \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{()} \sum_{i=1}^{()} \sum_{j_{sa}^{sa} = j_{sa}^{ik}} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - l_{sa})! \cdot (n - j^{sa})!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(n_{ik}=j^{sa}+j_{ik}-j_{sa})}^{(n_{sa}=l_{sa}-k+1)} \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(n_i - n_{ik} - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - n - 1 \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j_{sa}=j_{sa}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-i_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{sa})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i - j_{sa} + s - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} - \\
& \sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n - l_s \leq D - n + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{(j^{sa}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1$$
$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-\mathbb{K}_2} \frac{(n_i-n_{ik}-\mathbb{K}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{K}_1+1)!}$$
$$\frac{(n_{sa}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$
$$\frac{(n_{sa}-1)!}{(j^{sa}-n-1)! \cdot (n-j^{sa})!}$$
$$\frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!}$$
$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} +$$
$$\sum_{k=l}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{(\quad)}$$
$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i-n_{ik}-\mathbb{K}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{K}_1+1)!}$$
$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}^{i-1}+1-j_{ik})}^{(n_i-1)+1}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=n_{ik}+j_{sa}-\mathbb{k}_2}^{()} (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - 1)!}{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} + l_i - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}{(D + j_{sa} + l_i - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge \{l_s, l_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - 1)!}{(l_{ik} - j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l-1)! \cdot (\mathbf{n}+j_{ik}-j^{sa}-s)!} \\
& \sum_{k=0}^{j_{ik}-l-1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}-j_{sa}^{lk}-1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D+s-\mathbf{n}+1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} < j^{sa} < j_{ik}+j_{sa}-s \wedge$$

$$l_{ik}+j_{sa}^{lk}-1 = l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} = l_{ik} \wedge l_i+j_{sa}-s > l_{sa} \wedge$$

$$D+s-\mathbf{n}-l_i \leq D+l_s+s-\mathbf{n}-1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^s < j_{sa}^{ik}-1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
 \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa}-j_{ik}-l_i)! \cdot (\mathbf{n}-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s > -l_i \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik} - \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq \mathbf{n} \wedge s = s + \mathbb{k},$$

$$\mathbb{k}_2: Z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} j^{sa} = \mathbb{k}_2$$

$$\sum_{n_i=\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1-j_{ik}+1)}^{(l_{ik}+1)} \sum_{(n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(j_{sa}+1)} j^{sa}+1$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1))$$

$$D \geq n < n \wedge l = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \frac{(l_{ik}-k-1)!}{j^{sa}+j_{sa}-k-j_{sa}^{ik}+1} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - \mathbb{k}_2)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-k+1)} \frac{(l_{ik}-k-1)!}{j^{sa}+j_{sa}-k-j_{sa}^{ik}+1} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - \mathbb{k}_2)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - n_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (n_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \binom{n_{sa}+j_{sa}-k-j_{sa}^{ik}+1}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=n_{sa}-D-s}^{n_{sa}+j_{sa}-k-j_{sa}^{ik}+1} \binom{n_{sa}+j_{sa}-k-j_{sa}^{ik}+1}{j_{sa}=n_{sa}-D-s}$$

$$\sum_{k=n+l_s}^{(n_i-j_s+1)} \sum_{j_{sa}=n+l_s+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}$$

$$\binom{()}{()}$$

$$\sum_{k=n+l_s+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} - n_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n_{sa} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D - l_i) \leq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{sa}}^{DQSD} = \sum_{k=1}^{i^{l-1}} \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{(\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_i+j_{sa}-k-s+1} \sum_{n_i=\mathbf{l}_i+\mathbb{K}-(\mathbf{l}_i-j_{ik}-\mathbb{K}_1+1)}^n \sum_{n_{ik}=\mathbf{n}-j_{ik}+1}^{(\mathbf{n}-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-j_{sa}^{ik}}^{\mathbf{l}_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^l \sum_{i^k}^{l_i} \sum_{j_{sa}^{ik}}^{l_i+j_{sa}-i^{l-s}+1}^{j^{sa}=l_i+n+j_{sa}-D-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-s-1)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa}^{i_1} = j_{sa}^{i_2} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i_2} - 1 \wedge j_{sa}^{i_2} < j_{sa}^{ik} - 1 \wedge$$

$$s \cdot \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{i_2}, \dots, j_{sa}^{i_1}\} \wedge$$

$$s \geq \mathbb{K} \wedge s = s + 1 \wedge$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{K} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^{l-1} - (j_{sa}^{ik} - k)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+j_{sa}-s+1} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_i+j_{sa}-s+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^{l-1} - (j_{sa}^{ik} - k)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+j_{sa}-s+1} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-s+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} - j^{sa} - \mathbf{n} - l_i)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} S_{j_{ik}, j_{sa}} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}^{ik}-s}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik})! (n_{sa} - 1)!}{(j_{sa} - \mathbb{k}_2 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{n_{ik} - j_{ik} - \mathbb{k}_1} \sum_{l=1}^{n_{sa} - j_{sa} - \mathbb{k}_2} \frac{(n_{ik} - j_{ik} - \mathbb{k}_1 - k)!}{(n_{ik} - j_{ik} - \mathbb{k}_1 - k + 1)!} \cdot \frac{(n_{sa} - j_{sa} - \mathbb{k}_2 - l)!}{(n_{sa} - j_{sa} - \mathbb{k}_2 - l + 1)!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{n_{ik} = n_{ik} - j_{ik} + 1}^{n_{ik} - j_{ik} - \mathbb{k}_1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{sa} + j_{sa} - j^{sa} - s} \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{n_{is} = \mathbf{n} + \mathbb{k} + j_{sa}^{ik} - j_{ik}}^{(n_i - j_s + 1)} \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k}_1 + 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)} (j^{sa}+j_{sa}^{ik}-j_{sa}) l_{ik}+j_{sa}-k-j_{sa}^{ik}+1 \sum_{j^{sa}=j_{sa}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \sum_{j_{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_i - 1)!}{(n_i + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{sa}-i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(l_{sa}-i)^{l+1}} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j_{sa}=j_{sa})}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{\sum_{i=1}^{\lfloor \frac{D-n}{2} \rfloor} \lfloor \frac{D-n}{2} \rfloor} \sum_{j_{ik}=j_{sa}^{ik}}^{(j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}^{(j_{sa}=j_{sa})}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa})} \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (s - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^{\binom{D}{i}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l - k - 1)!}{(l + j_{sa}^{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D > \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$+ j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{i,j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-k+j_{sa}-k-j_{sa}^{ik}+1)} \sum_{j_{sa}=n-D}^{n-D} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n_{sa}-j_{ik}+1)}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-\mathbb{k}_2)!}{(l_s+j_{sa}^{ik}-j_{sa}-j_{ik}-\mathbb{k}_2)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1)$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n - l_i \leq l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$l_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik})!}{(j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik})!}{(j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_{sa} - l_{sa}^{ik} + 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{(l_{sa} - l_{sa}^{ik} + 1)} \sum_{(j_{sa} = l_{sa} + n - D)}^{(l_{sa} - l_{sa}^{ik} + 1)} \\
& \sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{ik} = n + \mathbb{K} - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - n_{ik} - \mathbb{K}_1 + 1)! \cdot (n_i - n_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{sa} - n_{ik} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{l_{sa} - l_{sa}^{ik} + 1} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(l_{ik} - k + 1)} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(l_{ik} - k + 1)} \\
& \sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{K}_1}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{(n_i - j_s + 1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}}^{DO} = & \sum_{i=1}^{l-1} \sum_{j_{ik}=1}^{(i-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(i-k+1)} \\ & \sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_i} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-i^{l_i+1})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l_i} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}{(D + j^{sa} - l_{sa})!} - \\
& \sum_{s=1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_i+j_{sa}-k-s+1}^{l_i+j_{sa}-k-s+1} \sum_{j_{sa}=l_i+j_{sa}-D-s}^{l_i+j_{sa}-D-s} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-j_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-\mathbf{n}+1-n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} +$$

$$\sum_{k=1}^l \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_i+j_{sa}-l^{l-s+1}}^{l_i+j_{sa}-l^{l-s+1}} \sum_{j_{sa}=l_i+j_{sa}-D-s}^{l_i+j_{sa}-D-s} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{k=0}^{l_s+j_{sa}-k} \binom{l_s+j_{sa}-k}{j_{ik}-j_{sa}^{ik}-j_{sa}} \cdot \\
& \sum_{i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{i=n+\mathbb{k}}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \binom{n_i-j_s+1}{i=n+\mathbb{k}} \cdot \\
& \sum_{k=0}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \binom{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}{k=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \cdot \sum_{k=0}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \binom{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{k} \cdot \\
& \frac{(n_i + j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \\ & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=i^l}^{(l_i+j_{sa}^{ik}-i^l-s+1)} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \end{aligned}$$

$$\frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n=n+l_k}^n \sum_{(n_{is}=n+l_k)}^{(n_{i-1}+1)} \sum_{j_{ik}}$$

$$\frac{\sum_{n_{il}=n_{is}+j_{sa}^{ik}-k_1}^{(n_{i-1}+1)} \sum_{n_{il}=n_{is}+j_{sa}^{ik}-k_2}^{(n_{i-1}+1)} \frac{(n_i + j_{ik} + j_{sa}^{ik} - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - s - j_{sa}^{ik})!}}{(n_i + j_{sa}^{ik} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n - l_i \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}+j^{sa}-\mathbf{n}-1} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_s + j_{sa})!}{(l_{ik} - j_{ik} - l_s + j_{sa} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa} - l_{sa} - s)!}{(l_s + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-k)}^{(j_{ik}=j^{sa}+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(l_i - j_{sa}^{ik} + 1) < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_{sa}+j_{sa}^{ik}-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})} \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{(l_{sa}+j_{sa}^{ik}-l-j_{sa}+1)} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_{sa}+j_{sa}^{ik}-l-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_i - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_i + j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(l_s + j_{sa}^{ik} - \mathbf{n} - l_i - j_{sa}^{ik} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_{ik}=l_i+n_i-j_{sa}^{ik}-D-s}^{D+l_s+s-\mathbf{n}-l_i} \sum_{j_{sa}^{ik}=j_{ik}-D-s}^{(l_s+j_{sa}^{ik}-j_{ik}-D-s)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(l_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j}^{D_0} &= \sum_{i=0}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{ik}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \\ &\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{sa} - j_{ik})!}{(l_{ik} + j_{ik} - n_{sa} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i - j_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{sa} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} - \mathbf{n} - j_{sa}^{ik} \wedge \\
& D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - j_{sa}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge \\
& D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge
\end{aligned}$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-j_{sa})!} \cdot \frac{(n_{sa}-n_{sa}-n-1)! \cdot (n-j_{sa})!}{(n_{sa}-j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{(n_{sa} - l_{sa} - s + 1)} \sum_{l=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}^{ik} = l_{sa} + n_{sa} - j_{ik} - l_{sa} - k + 1}^{(j_{ik} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + l_{sa} - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2}^{n_{sa} - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2} \sum_{n_{ik} = n + l_{sa} - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2}^{n_{sa} - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{sa} - j^{sa} + 1}$$

$$\frac{(n_{sa} - n_{ik} - j_{sa}^{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{sa} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}-n_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{ik} - l + 1} \sum_{j_{ik}=l_{ik}+k-1}^{(n_{ik} - j_{ik} - j_{sa}^{ik} - 1)} \sum_{j_{sa}=l_{sa}+n-l_{ik}+1}^{(n_{sa} - j_{sa} - j^{sa} - 1)} \\
& \sum_{n_i=n+l_{ik}-j_{ik}-j_{sa}^{ik}-1}^n \sum_{n_{ik}=n+l_{ik}-j_{ik}-j_{sa}^{ik}-1}^{n_{ik}-j_{ik}-j_{sa}^{ik}-1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}-j_{sa}-j^{sa}-1} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq l_s + l_{sa} + j_{sa} - j_{sa}^{ik} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)}^{l_{sa}-k+1} \sum_{j_{sa}=l_{sa}-D}^{l_{sa}-k+1} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - k_1 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!} +$$

$$\sum_{k=i^l}^{(l_{ik} - i^l + 1)} \sum_{j_{sa}^{ik} = l_{sa} - i^l + 1}^{l_{sa} - i^l + 1} \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\sum_{k=\mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} - j_{ik} + 1)}^{(n_{ik} + j_{ik} - \mathbf{n} - D)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\begin{aligned}
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa}^s + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^s - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + \mathbf{n} + j_{sa} - \mathbf{n} - 1$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik} - \mathbb{k}_2, j_{sa}^i - j_{sa}^i\} \wedge$$

$$s \geq \mathbf{n} \wedge s = s + \mathbb{k},$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{i l-1} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{(j_{sa} + j_{sa}^{ik} - j_{sa})} \sum_{(j_{sa} = l_i + \mathbf{n} + j_{sa} - D - s)}^{(l_{ik} + j_{sa} - k - j_{sa}^{ik} + 1)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{l-1} \sum_{j_{ik}=l_{ik}+n-D}^{(n-k+1)} \sum_{j_{sa}=l_{ik}+n-j_{ik}-k-s+1}^{(n-k+1)} \frac{(n_{ik} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{l-1} \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-i^{l+1})} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l + j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - j_{sa} - l + j_{sa}^{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l + j_{sa}^{sa} - l_{ik} - j_{sa}^{sa} - j_{sa}^{ik})! \cdot (j_{sa}^{sa} + j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(n + j_{sa} - n - s)!}{(n + j_{sa} - n - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}-j_{sa}^{ik}-j_{sa})}^{(j_{sa}^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1}^{j_{sa}^{ik}-1} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{l}_{ik}-\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i-j_{ik}-\mathbb{K}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{K}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}^{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \frac{(\mathbf{l}_{ik}-k-j_{sa}^{ik})!}{(\mathbf{l}_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(\mathbf{l}_{sa}+j_{sa}^{ik}-\mathbf{l}_{ik}-j_{sa})!}{(j_{ik}+\mathbf{l}_{sa}-j_{sa}-\mathbf{l}_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-\mathbf{l}_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-\mathbf{l}_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1}^{j_{sa}^{ik}-1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i\mathbb{k} - j_{sa})!}{(l_{ik} - j_{ik} - i\mathbb{k} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_{ik}-i\mathbb{k}+1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i\mathbb{k}-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i\mathbb{k} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i\mathbb{k} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l_s-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \geq l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1 \wedge$$

$$s: (j_{sa}^i - \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i) \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: 5 \leq \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right. \\
& \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_i-j_{ik})}^{(n_i-\mathbb{k}_1+1)}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{j^{sa}=n_{ik}-j^{sa}-\mathbb{k}_2}^{()} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!}}{(n_i + j_{sa}^{ik} - j_{sa}^{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + l_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{ik}^{ik} + 1 \leq j_{ik}^{ik} < j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge \mathbb{k} = \mathbb{k} > \mathbb{k} \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq s \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{(j_{ik}+j_{sa}^{ik}-l_{sa}-j_{sa}^{ik}-1)} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D+l_s+s-\mathbf{n}-l_i)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa})}$$

$$\sum_{(n_i=j_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)}^{(n_i-j_{sa}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)} \sum_{(n_{is}=j_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)}^{(n_{is}-j_{sa}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)}^{(n_{ik}-j_{sa}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa} - j^{sa} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i + j_{ik} - j_{sa} - j^{sa} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^{ik} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}} \binom{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}}{k} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \binom{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}{j_{ik}-l_{ik}+n-D} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_i-j_{ik}-\mathbb{k}_1+1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right)$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}=l_{ik}+n-D) \cdot (j_{sa}=l_{ik})} \frac{(l_{sa}-k+1)!}{j_{sa}^{ik}+2} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n_{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2-1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_i - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - l_{sa} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(\mathbf{n} + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{j_{ik}=\mathbf{n}+j_{sa}-j^{sa}-l_i}^{D+l_s+\mathbf{n}-l_i} \sum_{j_{sa}^{ik}=\mathbf{n}+j_{sa}-j^{sa}-l_i}^{(j_{ik}+j_{sa}-j^{sa}-l_i)} \sum_{j_{sa}^{ik}=\mathbf{n}+j_{sa}-j^{sa}-l_i}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{(D+\mathbf{l}_{ik}-j_{sa}-\mathbf{n}-\mathbf{l}_{sa}-j_{sa}^{ik}+1)} \\ & \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-l_{sa}-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n+\mathbb{k}-j_{sa}+1)}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{i=1}^{D-1} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_s+n+j_{sa}-D-1}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_s+j_{sa}-k}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-1)!}{(D+j_{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa} - \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa} - 1, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+l_s-j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}^{ik}=n+l_s-j_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik})}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n+j_{sa}-j_{ik})}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_{ik}-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-j_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-j_{sa}-n-1)!}{(n_{sa}-j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_i-k-j_{sa}^{ik})!}{(l_i-j_{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=1}^{D+l_s-j_{sa}-l_{sa}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_{ik}, j_{sa}}^{DOS} \sum_{i=1}^{D-n+1} \sum_{j_{ik}=l_{ik}+n-D-s}^{j_{sa}^{ik}-k-s} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}^{ik}-k-s} \\ & \sum_{i=n+\mathbb{k}}^{(n_i-n-\mathbb{k}_1+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \end{aligned}$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{s, \mathbb{k}_1}, j_{sa}^{ik}, \dots, j_{sa}^{s, \mathbb{k}_2}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_{z, \mathbf{s}} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-s+1, j_{sa}=l_s+j_{sa}-k+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(n_i=n+l_{ik}-j_{sa}-k+1, n_{ik}=j_{ik}-j_{sa}-k_2)}^{(j_{ik}-j_{sa}-k+1)} \frac{(n_i - 1)!}{(j_{ik} - j_{sa} - k + 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(j_{ik} - n_{ik} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (j_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$S_{j_{sa}^{ik}}^{DO} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-j_{sa}^{ik}-1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n+j_{sa}^{ik}-j_{ik}-1)}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik})!}{(n_i - j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - n_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_{is}=n+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_s^s - \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_1 - j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j^{sa}=l_s+j_{sa}-k+1)}^{(j_{sa}^{ik}-k)} \cdot \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{ik}=n+l_{ik}-j_{ik}+1)}^{(j_{ik}-j_{sa}^{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(j_{ik}-j_{sa}^{ik}-1)} \cdot \\
& \frac{(n_i - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(j_{ik} - n_{ik} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (j_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \cdot \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa}^i \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: (j_{sa}^i - \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^s, \dots, j_{sa}^{ik}) \wedge$$

$$j_{sa}^i \geq 5 \wedge j_{sa}^s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k}_1 = \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa})!} +$$

$$\sum_{k=1}^{D-n+1} \frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{sa} - j_{sa}^{ik} - k + 1)! \cdot (j_{sa}^{ik} - l_{sa} - k)!} \cdot \frac{l_{sa} - k + 1}{n_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_2}^{\mathbf{n}} \sum_{n_{ik} = n_{sa} - j_{ik} - 1}^{n_i - j_{ik} - \mathbb{K}_2 - 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - j_{sa}^{ik} - j_{ik} - 1)! \cdot (n - j_{sa} - j^{sa} - s)!}.$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(n - j_{sa} - j^{sa} - s) \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot$$

$$\frac{(n_{sa} - j^{sa} - 1)!}{(n_{sa} - j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$S_i^{DO} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} (n_i - j_{ik} - \mathbb{K}_1 + 1) \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1} (n_{sa} - 1)! \cdot \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i+l_i+1)} \\
& \sum_{n=n+\mathbb{k}}^n \sum_{(n_{is}=n)}^{(n_i+l_i+1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_i+l_i+1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2)}^{(n_i+l_i+1)} \\
& \frac{(n_i + j_{ik} + j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - k - 1)!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + l_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
& ((D \geq n < n \wedge l_s = D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge \\
& D \geq n < n \wedge l = \mathbb{k} > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge
\end{aligned}$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=\mathbf{l}_{ik}+\mathbf{n}+j_{sa}-D-j_{ik}^{ik}+1}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+j_{sa}-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-1} \\
 & \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\
 & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} - \\
 & \sum_{i=1}^{D+l_s+s-\mathbf{l}_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOS} = \sum_{k=1}^{D-j_{ik}-k+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{ik}=l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-\mathbf{n}-l_s-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - \mathbf{n} - s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - \mathbf{n} - s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s, \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z^{SDSD} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1-j_{ik})}^{(n_i-\mathbb{k}_1+1)}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2}^{(\quad)} \sum_{(n_{ik}=\mathbf{n}+j_{sa}-\mathbb{k}_2)}^{(\quad)} (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(j_{ik} + j_{sa} - j^{sa} - k - 1)!}{(j_{ik} + j_{sa} - j^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(j_{sa} - l_i)!}{(D + j^{sa} + \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\begin{aligned} & ((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\ & j_{ik}^{ik} + 1 \leq j_{ik}^{ik} < j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\ & l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee \\ & (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\ & j_{sa}^{ik} + 1 \leq j_{ik}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\ & l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa})) \wedge \end{aligned}$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\ \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ \frac{(l_{ik}+j_{sa}^{ik}-l_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\ \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\ \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{ik}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}$$

$$\sum_{(n_i=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_{sa}^{ik})} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1)}^{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}$$

$$\sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{ik}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}))$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_{sa}^{ik}}^{SD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_i - 1)!}{(n_i + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - 1)!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{l_i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^b < j_{sa} - 1 \wedge j_{sa}^i = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, l_{sa} + j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^b, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = j_{sa} + \mathbb{k} \wedge$$

$$\mathbb{k}_{2+2} = 2 + \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{sa}+j_{sa}^{ik}-D-j_{sa}^{ik})}^{(l_{ik}-k-j_{sa}^{ik})} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{ik}-k-j_{sa}^{ik})} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-j_{sa}^{ik}-j_{ik})! \cdot (\mathbf{n}-j_{sa}-j_{sa}^s-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} = l_i \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq \mathbf{n} + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s = j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k},$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} + j_{sa}^{ik} - k} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1} \frac{(l_{sa} - k + 1)!}{(j_{sa}^{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{(n_{ik} = \mathbf{n} - j_{ik} + 1)}^{n_i - j_{ik} - \mathbb{K}_2 - 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - i^{l+1}} \sum_{j_{sa}^{ik} = j_{sa}^{ik}}^{l_{sa} - i^{l+1}} \sum_{j_{sa} = j_{sa}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - l_{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{lk}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(l_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{lk})}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_j^{SD} = \sum_{k=1}^{(l_s + j_{sa}^{ik} - k)} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{l_{sa} - k + 1} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{l_{sa} - k + 1} \\ \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^{l+1}} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(j_{ik}=j_{sa}^{ik})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\sum_{i=1}^n l_i} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}}^{(\quad)} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(D-l_i)}{(D+s-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-1) \cdot (\mathbf{n}-s)!}}{}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} = j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k}_z = \mathbb{k}_1 \vee \mathbb{k}_2 \Rightarrow$$

$$Z_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{i l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}^{ik}+2}^{(j_{sa}=j_{sa}^{ik})} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}^{ik}+2}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{ik}=n+l_2-j_{ik}+1)}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right)
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}^{ik}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - k + 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{i_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}}^{(l-1)} \sum_{j_{sa}=j_{sa}+1}^{l_s+j_{sa}-1} \right) \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{(l)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l)} \sum_{j_{sa}}^{(l)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg)$$

$$\left(\sum_{k=1}^{i\mathbf{l}-1} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(j_{sa}^{sa}+j_{sa}^{ik}-1)} \sum_{j^{sa}=j_{sa}^{sa}-k}^{l_s+j_{sa}^{sa}-k} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i\mathbf{l}-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{i^{l+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \cdot \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}^s+s-\mathbf{n}-l_i-1)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j_{sa}^s=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa}^s - j_{sa}^{ik} - 1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{sa}}^{(l_{sa}-k+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \right) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right.
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (n_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l-k-1)!}{(l+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-n-l_i-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s = \mathbb{F} < n+1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa}-1 \wedge$$

$$j_{sa}+j_{sa}^{ik}+1 \leq j^{sa} \leq n+j_{sa}-s \wedge$$

$$l_{ik}-j_{sa}^{ik}+1=l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D+j_{sa}-n \wedge$$

$$D \geq n < n \wedge I=\mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^s=j_{sa}^{ik}-1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right. \\ \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{()} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} + j_{ik} - k - 1)!}{(l_{ik} + j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - k)!} \cdot \frac{(j_{ik} - j_{sa}^{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i - j_{sa}^{ik} - (n + j_{sa} - j^{sa} - s))!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n + l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-l_{sa}-j_{sa}^{ik}+1} \binom{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}{(j_{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}+n-D} \right. \\ & \sum_{n_i=n+\mathbb{k}}^{(n_i-n_{ik}+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right) \end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}-j_{sa}^{ik}+1)!} \frac{(l_{sa}-k+1)!}{(j^{sa}-j_{sa}^{ik}+1)!} \frac{(j_{sa}^{ik}+2)!}{(j_{ik}-j_{sa}^{ik}+1)!} \cdot$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2-\mathbb{k}_1)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-j_{sa}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - 1 \geq l_{ik} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq j_{ik} + j_{sa} - l_{sa} - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq l_s, s = s + \mathbb{k}_1 + 1$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{s=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{ik}+1} \sum_{j_{sa}^{ik}=1}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{j_{sa}=n-l_{sa}-j_{sa}^{ik}+2}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{l_{sa}-k+1} j_{sa}=l_{sa}+n-D \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^D \sum_{\substack{(\quad) \\ (j_{ik}=j_{sa}^{ik})}} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{\substack{(n_i-j_{ik}-\mathbb{K}_1+1) \\ (n_{ik}=\mathbf{n}+\mathbb{K}-j_{ik}+1)}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \frac{(n_i - j_{ik} - \mathbb{K}_1 - 1)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - \mathbf{n} - \mathbb{K}_2 - 1)!}{(n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+s-\mathbf{n}-l_i} \sum_{\substack{(\quad) \\ (j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} s_z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ &\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik} - k + 1)!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-k)}^{(l_{ik}-k+1)} \sum_{(j_{sa}=j_{ik}-\mathbf{n}-j_{sa}^{ik})}^{(n_{sa}-j_{sa}^{ik})}$$

$$\sum_{(n_i=n+\mathbb{k})}^{(n_i-s)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_{sa}-j_{sa}^{ik})}$$

$$\sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)}^{(n_{ik}-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbb{k}_1 - j^{sa})! \cdot (\mathbf{n} + j_{sa} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} - 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - j_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$\mathbf{n} > n - 1 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}+j_{sa}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_{sa}-k-j_{sa}^{ik})!}{(l_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{lk}-D-j_{sa})}^{(l_s+j_{sa}^{lk}-k)} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - \mathbf{n} - \mathbb{K}_2 - 1)!}{(j^{sa} - \mathbf{n} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{il-1} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_s+j_{sa}^{lk}-k)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{i=1}^{l_{sa}-l+1} \sum_{j_{ik}=j_{sa}}^{n_{ik}-j_{ik}-\mathbb{K}_2-1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-k+1}$$

$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^i \sum_{l=0}^{()} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_{sa}-i-l+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{n_{ik}=n+\mathbb{K}-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - \mathbb{K}_1 - 1)!}{(n_i - \mathbb{K}_1 - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - \mathbb{K}_2 - 1)!}{(n_{ik} - \mathbb{K}_2 - j_{ik} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i-l-1} \sum_{l=0}^{()} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{K}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}-j_{sa}-\mathbb{k}_2}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq \mathbf{n} + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} -$$

$$s \in \{s_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, j_{sa}^i\} \wedge$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=0}^{l_{sa} + j_{sa}^{ik} - l - j_{sa}^{ik} - 1} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n - j_{ik} - j_{sa}^{ik} - 1}^n \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{j_{ik} - j_{sa}^{ik} - 1} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{a=j_{sa}}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1+1)}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + s > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n})$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + s > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge (l_{sa} - j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\ \frac{(l_{ik}-j_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-\mathbf{l}_{sa}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ \frac{(j_{ik}+l_{sa}-j^{sa}-l_{ik})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\ \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} + \\ \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=i^l}^{(l_{ik} - i^l + j_{sa} - i^l + 1)} \sum_{j_{ik}=j_{sa}}^{(j_{ik} - j_{sa})} \sum_{j_{sa}=j_{sa}}^{(j_{sa} - j_{sa})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_1+j_{ik}-j_{sa}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik})!}{(n_i - j_{ik} - \mathbb{k}_1 - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \mathbb{k}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\binom{n}{\mathbf{n} + \mathbb{k}_1 + 1}} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{a=j_{sa}}^{\binom{n}{\mathbf{n} + j_{ik} - j^{sa} - \mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + \mathbf{n} > l_s \wedge l_{ik} + j_{sa} - j_{sa}^{ik} > l_s$$

$$l_i \leq D + s - \mathbf{n})$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + \mathbf{n} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge (j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-j_{sa}^{ik}} \\
 & \frac{(n_i-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\
 & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-j_{sa}^{ik}+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\
 & \frac{(j_{ik}+l_{sa}-j^{sa}-l_{ik})!}{(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=i^l}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^{l+1}} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-i^{l+1}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i l - 1} \sum_{(j_{ik}=j_{sa}^{ik}+1, \dots, j_{ik}=j_{sa}^{ik}-j_{sa}^{ik})} \sum_{(n_i-j_s+1, \dots, n_i-j_s+1)} \sum_{(n+l_k, \dots, n+l_k)} \sum_{(n_{is}=n_{is}+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}, \dots, n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}^{ik}=j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i l-1} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}+1}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{K}}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{sa}-j_{sa}-1} \right) \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=i l}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}}^{(\mathbf{l}_{ik}+j_{sa}-i l-j_{sa}^{ik}+1)} \\ \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \cdot$$

$$\left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=j_{sa}+2}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_{ik}=j_{ik})} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^n \sum_{l=i}^n \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j^{sa}+j_{sa}^{ik}-1)l_{ik}+j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1+1)l_{ik}+j_{sa}^{ik}+1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j^{sa}=l_{ik}+j_{sa}-i}^{l_{sa}-i} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i^{l_{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - i^{l_{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}} (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} - j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k}_z = \mathbb{k}_1 \vee \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+l_1}^n \sum_{n_{ik}=n+l_2-j_{ik}+1}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - l_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+l_1}^n \sum_{n_{ik}=n+l_2-j_{ik}+1}^{(n_i-j_{ik}-l_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-l_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - l_2)!} \cdot \\
& \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \right)
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=i}^{l_{ik}-l+1} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-l+1} \sum_{(j_{sa}=j_{sa}^{ik}+1)}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_i=n_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik})!}{(n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\sum_{k=1}^{\binom{n}{\mathbf{n} + \mathbb{k}_1 + \mathbb{k}_2}} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{a=j_{sa}}^{n - j_{sa}^{ik} - 1} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} >$$

$$D + j_{sa} - \mathbf{n} < l_s \leq D + j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^{ik}, j_{sa}^{ik}, \dots, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = \mathbf{n} + \mathbb{k} \wedge$$

$$\mathbf{n} = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D + l_{ik} + j_{sa} - \mathbf{n} - l_{sa} - j_{sa}^{ik} + 1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k + 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{n_{ik} - \mathbf{n} - l_{sa} - j^{sa} + 1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa}^{ik} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=\mathbf{i}l}^{(j^{sa} + j_{sa}^{ik} - j_{sa} - 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{l_{ik} + j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1} \sum_{j_{sa} = l_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1}^{j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_{ik} - 1)} \sum_{(n_{ik} = j_{ik} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\
& \frac{(n_i - n_{ik})!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - j_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - \mathbf{i}l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{i}l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{i}l}^{(l_{ik} - \mathbf{i}l + 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{l_{sa} - \mathbf{i}l + 1} \sum_{j_{sa} = l_{ik} + j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 2}^{l_{sa} - \mathbf{i}l + 1} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{ik}-k+1)} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \right. \\ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \right. \\ \left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}+l_{sa}+\mathbf{n}+j_{sa}^{ik}-j_{sa})!} \frac{l_{sa}-k+1}{j^{sa}-l_{sa}+j_{sa}^{ik}+1} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + \mathbf{l} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{j^{sa}+j_{sa}^{ik}-l_{sa}-1} \sum_{l_{ik}=\mathbf{l}+n-D}^{l_{ik}+j_{sa}-\mathbf{l}-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{sa}+n-D} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - \mathbf{l} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{l} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{(l_{ik}-i)^{l+1}} \sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}-i^{l+1}} \sum_{j_{sa}=l_{ik}+j_{sa}-i^{l-j_{sa}^{ik}+2}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \\
& \frac{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)!}{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \left(\frac{(D + j^{sa} - n - l_{sa} + j_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{s=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{l_{sa}-k+1} \sum_{j_{sa}+1}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}}^{n, D} &= \sum_{k=1}^{l-1} \sum_{i=jsa+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{jsa=jsa+1}^{l_{sa}-k+1} \\ &\sum_{i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_i=j_{ik}-\mathbb{K}_1+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=1}^{(\quad)} \sum_{i(l_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{jsa=j_{sa}} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - l_{sa})! \cdot (n - j_{sa})!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(n_{ik}=j^{sa}+j_{ik}-j_{sa})}^{(n_{sa}=l_s-k+1)} \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n - j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - n - j_{sa} \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j_{sa}=j_{sa}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-i_{ik}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{sa})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} - \\
& \sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n - l_s \leq D - n + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}^{ik}+1)}^{(l_{ik}+j_{ik}-k-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}^{ik}+1}^{j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(j^{sa} - j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{(l)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l)} \sum_{j_{sa}}^{(l)} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}^{i_1}+j_{sa}^{i_1}-j_{ik})}^{(n_{is}^{i_1}+1)}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{i_1}-j_{sa}-\mathbb{k}_2}^{()} \sum_{j_{sa}^{i_1}=n_{ik}+j_{sa}-\mathbb{k}_2}^{()} (n_i + j_{ik} + j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1})!} \cdot$$

$$\frac{(n_i + j_{ik} + j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1})!} \cdot$$

$$\frac{(n_i + j_{ik} + j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1} - \mathbb{k}_1 - \mathbb{k}_2)!}{(D + j^{sa} + j_{sa}^{i_1} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge \{j_{sa}^{i_1}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} - j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}^s+s-\mathbf{n}-l_i-1)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j_{sa}^s=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+j_{sa}^s-j_{sa}^{lk}-1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D+s-\mathbf{n}+1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^s < j_{sa}^s < \mathbf{n} + j_{sa} - s \wedge$$

$$l_i + j_{sa}^s - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D+s-\mathbf{n}-l_i \leq D+l_s+s-\mathbf{n}-1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 {}_{fz}S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j_{sa}=j_{sa}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
 \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-j_{sa}^{sa}-j_{sa}^{ik}-l_i)! \cdot (\mathbf{n}-j_{sa}-j_{sa}^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s > -1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{sa}, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + \mathbb{k},$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - \mathbb{K}_1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} j^{sa} = \mathbb{K}_2$$

$$\sum_{n_i=n+\mathbb{K}_1}^n (n_{ik}=n+\mathbb{K}_1+j_{ik}+1) \quad n_{sa}=n+j_{ik}-j^{sa}-\mathbb{K}_2$$

$$\frac{(n_i - j_{ik} - 1)!}{(j_{ik} - \mathbb{K}_1 - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1))$$

$$D \geq n < n \wedge I = \mathbb{K} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s - \mathbb{K}_1, j_{sa}^{ik}, \dots, j_{sa}^{ik} - j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge s = s - \mathbb{K} \wedge$$

$$\mathbb{K}_2 = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} j^{sa=l_i+j_{sa}-k-j_{sa}^{ik}+1} \cdot \sum_{n_i=n+1}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - j_{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(j_{ik} - n_{ik} - l_{k_2} - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=i^l}^{()} \sum_{(j_{ik}=j_{sa}^{lk})}^{l_i+j_{sa}-i^{l-s+1}} j^{sa=l_i+n+j_{sa}-D-s} \cdot \sum_{n_i=n+l_{k_1}}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - n_{sa} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (n_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \binom{n_{ik}+j_{sa}-k-j_{sa}^{ik}+1}{j_{ik}=j^{sa}+j_{ik}-j_{sa}} \sum_{j=1}^{n_{sa}-D-s} \binom{n_{sa}-j}{j}$$

$$\sum_{k=n+l_s}^{(n_i-j_s+1)} \sum_{j=n+l_s}^{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})}$$

$$\sum_{k=n+l_s}^{(n_{is}=n+l_s+j_{sa}^{ik}-j_{ik})} \sum_{j=n+l_s}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} - n_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n_{sa} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D - l_i) \leq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{sa}}^{DQSD} = \sum_{k=1}^{i^{l-1}} \sum_{j_{sa}^{ik} = \mathbf{l}_i + \mathbf{n} + j_{sa}^{ik} - D - s}^{(\mathbf{l}_i + \mathbf{n} + j_{sa}^{ik} - D - s)} \sum_{j_{sa} = \mathbf{l}_i + \mathbf{n} + j_{sa} - D - s}^{(\mathbf{l}_i + \mathbf{n} + j_{sa} - D - s)} \sum_{n_{ik} = \mathbf{l}_{ik} - \mathbb{K}_1 + 1}^{(\mathbf{l}_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{(\mathbf{n} - j_{sa} + 1)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik} = \mathbf{l}_i + \mathbf{n} + j_{sa}^{ik} - D - s)}^{(\mathbf{l}_{ik} - k + 1)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{\mathbf{l}_i + j_{sa} - k - s + 1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{\mathbf{n}} \sum_{l=0}^{l_i+j_{sa}-i^{l-s}+1} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{(j_{ik}=j_{sa}^{ik})} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}-j_{sa}-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-s-1)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa}^{i-1} - 1 \wedge j_{sa}^{ik} < j_{sa}^{i-1} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i-1} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{i-1}, j_{sa}^i\} \wedge$$

$$s \geq \mathbb{k}_2 \vee s = s + 1 \wedge$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^{l-1} (j_{sa}^{ik} - k)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+j_{sa}-s+1} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{n_i-j_{ik}-\mathbb{K}_1+1} \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}+j_{sa}-\mathbf{n}+1} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} - j^{sa} - \mathbf{n} - l_i)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} S_{j_{ik}, j_{sa}}^{sa} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}^{ik}-s}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa})!} +$$

$$\sum_{k=0}^{n_{sa} - j_{sa}^{ik} - l_{sa} - 1} \sum_{l=0}^{n_{sa} - j_{sa}^{ik} - l_{sa} - 1} \sum_{s=0}^{n_{sa} - j_{sa}^{ik} - l_{sa} - 1} \frac{(n_{sa} - j_{sa}^{ik} - l_{sa} - s)!}{(n_{sa} - j_{sa}^{ik} - l_{sa} - s)!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_1}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_2 - 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}_2+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k}_1 + 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s - \mathbb{k}_1, j_{sa}^{ik} - \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s \leq 5 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)} (j^{sa}+j_{sa}^{ik}-j_{sa}) l_{ik}+j_{sa}-k-j_{sa}^{ik}+1 \sum_{j^{sa}=j_{sa}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \sum_{j_{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n - 1)!}{(n + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{sa}-i} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(l_{sa}-i)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j_{sa}=j_{sa})}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}} (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^{\binom{D}{i}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l - k - 1)!}{(l + j_{sa}^{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D > \mathbf{n} < n \wedge \mathbf{n} - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$+ j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$fz S_{i, k, j_{sa}}^{DOSD} = \sum_{k=1}^{i-1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}-j_{sa}^{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=n-D}^{n-D} \sum_{n_i=n+\mathbb{K}}^n \sum_{n_{ik}=n_{ik}-j_{ik}+1}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i-1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-\mathbb{k}_2)!}{(l_s+j_{sa}^{ik}-j_{sa}-j_{ik}-\mathbb{k}_2)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n)!}{(D+j^{sa}+s-n-j_{sa}-j_{sa}^{ik}-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1)) \wedge$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n - l_i \leq l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$l_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_{sa} - l_i + 1} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l_i+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{(n_{sa}=n+\mathbb{K}-j_{sa}+\mathbb{K}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \\
& \frac{(n_i - j_{ik} - 1)!}{(n_i - j_{ik} - \mathbb{K}_1 - 1)! \cdot (n_i - j_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{l_{sa}-s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}}^{DO} = & \sum_{i=1}^{l-1} \sum_{j_{ik}=1}^{(n_i - k + 1)} \sum_{j_{sa}=j_{ik} + j_{sa} - j_{sa}^{ik}}^{(n_i - j_{ik} + n - D)} \\ & \sum_{i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_i} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-i^{l_i+1})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \\
& \frac{(l_{ik} - j_{ik} - i^{l_i} - 1)!}{(l_{ik} - j_{ik} - i^{l_i} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{i=1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_i+j_{sa}-k-s+1}^{l_i+j_{sa}-k-s+1} \sum_{j_{sa}=l_i+j_{sa}-D-s}^{l_i+j_{sa}-D-s} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^l \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_i+j_{sa}-l-s+1}^{l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_i+j_{sa}-D-s}^{l_i+j_{sa}-D-s} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{k=0}^{l_s+j_{sa}-k} \binom{l_s+j_{sa}-k}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \cdot \\
& \sum_{i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{i=n+\mathbb{k}}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \binom{n_i-j_s+1}{i=n+\mathbb{k}} \cdot \\
& \sum_{k=0}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{k=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \cdot \sum_{k=0}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \binom{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{k} \cdot \\
& \frac{(n_i + j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa}^{ik})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa}^{ik} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa}^{ik} - s)!} + \\ & \sum_{k=i^l}^{(\mathbf{l}_i+j_{sa}^{ik}-i^l-s+1)} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa}^{ik})!} \cdot \end{aligned}$$

$$\frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+1)}^{(n_i+1)} \sum_{j_{ik}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n - l_i \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{(n_i-n_{ik}-1)!} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-i^{l-1}-j_{sa}^{ik}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_s + j_{sa})!}{(l_{ik} - j_{ik} - l_s + j_{sa} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa} - l_{sa} - s)!}{(l_s + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-l_{sa})}^{(l_s+j_{sa}-k)} \sum_{j_{sa}^{ik}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(\mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2) \leq \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{i_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_{sa}+j_{sa}^{ik}-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})} \sum_{n_{ik}=n+j_{sa}-j_{sa}^{ik}-\mathbb{K}_1+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}+j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{(l_{sa}+j_{sa}^{ik}-l-j_{sa}+1)} \sum_{i_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_{sa}+j_{sa}^{ik}-l-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_i + j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa}^{ik} - s)!}{(l_s + j_{sa}^{ik} - \mathbf{n} - l_i - j_{sa}^{ik} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{l_i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+n_{ik}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-j_{sa}^{ik}-D-s)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{ik}=l_i+n_{ik}^{ik}-D-s)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(l_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j}^{D_0} &= \sum_{i=0}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{ik}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_s+j_{sa}-k} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ &\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} + j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i - j_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - \mathbb{k}_1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} - \mathbf{n} - j_{sa}^{ik} \wedge \\
& D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - j_{sa}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge \\
& D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge
\end{aligned}$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - \mathbb{k}_2)!} \cdot \frac{(n - j_{sa} - 1)!}{(n_{sa} - n_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{sa} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{(j_{ik} - j_{sa}^{ik} - 1)} \sum_{j_{sa} = l_{sa} + n_{sa} - j_{sa}^{ik} - k}^{(j_{ik} - j_{sa}^{ik} - 1)}$$

$$\sum_{n_i = n + l_{sa} - j_{sa}^{ik} - k - 1}^{n} \sum_{n_{ik} = n + l_{sa} - j_{sa}^{ik} - k - 1}^{n} \sum_{n_{sa} = n - j^{sa} + 1}^{n}$$

$$\frac{(n_i - j_{sa}^{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - l_{sa} - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_{sa}}^n \sum_{(n_{is}=n+l_{sa}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{sa}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{sa})}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{sa} - j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{ik} - l + 1} \sum_{(j_{ik}=l_{ik}+1, \dots, n)} \sum_{j^{sa}=l_{sa}+n-l_{ik}+1}^{n_{ik}-j_{sa}-\mathbb{k}_2} \\
& \sum_{n_i=n+l_{ik}-j_{sa}-\mathbb{k}_2}^n \sum_{n_{ik}=n+l_{ik}-j_{sa}-\mathbb{k}_2}^{j_{ik}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - l_{ik} + 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - l_{sa} - 1)! \cdot (l_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq l_s + l_{sa} + j_{sa} - j_{sa}^{ik} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=\mathbf{l}_{ik}-k+1)}^{(\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=\mathbf{l}_{sa}-k+1}^{(\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \frac{(n_i - j_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)!}{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i l-1} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{\mathbf{l}_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa})!} +$$

$$\sum_{i=l}^{(l_{ik} - i^{l+1})} \sum_{k=0}^{(l_{sa} - i^{l+1})} \sum_{j_{ik}=i^l}^{(j_{ik} - i^{l+1} + \mathbf{n} - D)} \sum_{j_{sa}=i^l}^{(j_{sa} - i^{l+1} + \mathbf{n} - j_{sa}^{ik})}$$

$$\sum_{i=\mathbf{n}+\mathbb{K}}^n \sum_{n_{ik}=\mathbf{n}-j_{ik}+1}^{(n_{ik} - j_{ik} - \mathbb{K}_1 - 1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa}^{ik}-j_{ik}-1)! \cdot (\mathbf{n}-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + j_{sa} - \mathbf{n} - 1$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - j_{sa} \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik} - \mathbb{k}_2, j_{sa} - j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + \mathbb{k}$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j^{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} +$$

$$\sum_{k=0}^{l-1} \sum_{j_{ik}=l_{ik}+n-D}^{(n-k+1)} \sum_{j_{sa}=l_{ik}+n-j_{ik}-k-s+1}^{j_{sa}-k-s+1} \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(j_{ik} - l_{ik} - k + 1)! \cdot (j_{sa} - l_{ik} - k + 1)!} \cdot$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{n_{ik}=n_{ik}+n-j_{ik}+1}^{n_i-j_{ik}-\mathbb{K}_2-1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{l-1} \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-i^{l+1})} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_i + j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_i + j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - l_s + j_{sa} - 1)!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik} - 1)! \cdot (j^{sa} + j_{ik} - j_{sa})!} \cdot \\
& \frac{(n_i + j_{sa} - \mathbf{n} - s)!}{(n_i + j_{sa} - \mathbf{n} - 1)! \cdot (n_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{n_{ik}=\mathbf{n}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa})}^{(j_{ik}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1}^{(n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1}^{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1}^{j_{sa}=\mathbf{l}_i+j_{sa}-k-s+1} \sum_{j_{sa}^{ik}=\mathbf{l}_i+j_{sa}-k-s+1}^{j_{sa}^{ik}=\mathbf{l}_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_{ik}-i^l+1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l_s-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \geq l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^s, \dots, j_{sa}\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_1 > 0 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right. \\
& \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left(\sum_{k=0}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{ik})}^{(n_{is}+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!}$$

$$\frac{(j_{ik} + j_{sa}^{ik} - j_{sa} - k - 1)!}{(j_{ik} + j_{sa}^{ik} - j_{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + l_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{ik}^{ik} + 1 \leq j_{ik}^{ik} < j_{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge \mathbb{k} = \mathbb{k} > \mathbb{k} \wedge$$

$$j_{sa} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{(j_{ik}+j_{sa}^{ik}-l_{sa}-j_{sa}^{ik}-1)} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D+l_s+s-\mathbf{n}-l_i)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa})}$$

$$\sum_{(n_i=j_{sa}^{ik}-j_{sa}+j_{ik})}^{(n_i-j_{sa}^{ik}-j_{sa}+j_{ik})} \sum_{(n_{is}=j_{sa}^{ik}-j_{sa}+j_{ik})}^{(n_{is}-j_{sa}^{ik}-j_{sa}+j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}+j_{ik})}^{(n_{ik}-j_{sa}^{ik}-j_{sa}+j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}+j_{ik})}^{(n_{ik}-j_{sa}^{ik}-j_{sa}+j_{ik})}$$

$$\frac{(n_i + j_{ik} - j_{sa} - j^{sa} - l_{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i + j_{ik} - j_{sa} - j^{sa} - l_{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^{ik} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z \mathcal{S}_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) +$$

$$\left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \right.$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{ik}-k+1}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}-k+1}^{(l_{sa}-k+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(j_{ik}=l_{ik}+n-D)} \sum_{j_{sa}=l_{sa}+n-D}^{(j_{sa}=l_{sa}+n-D)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+2}^{(j_{sa}^{ik}=j_{sa}^{ik}+2)} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{n_{ik}=n_{sa}-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{K}_1-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1))!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{D-n+1} \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_i - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - l_i - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(\mathbf{n} + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{j_{ik}=\mathbf{n}+\mathbb{k}}^{D+l_s+l_i-l_i} \sum_{j_{sa}^{ik}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa}}^{(j_{ik}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{(D+\mathbf{l}_{ik}-j_{sa}-\mathbf{n}-\mathbf{l}_{sa}-j_{sa}^{ik}+1)} \\ & \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_2-j_{sa}^{ik}+1)}^{(n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1 - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - \mathbb{k}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{z=1}^{D-1} \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik}}^{()} \sum_{j_{sa}=l_s+n+j_{sa}-D-1}^{l_s+j_{sa}-k} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{l_s+j_{sa}-k}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-\mathbb{k}_2)!}{(l_s+j_{sa}-j_{ik}-\mathbb{k}_2)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-\mathbf{n})!}{(D+j^{sa}+s-\mathbf{n}-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
fz S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! (n + j_{sa} - s)!}$$

$$\sum_{i=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=l_i}^{(l_s+j_{sa}^{ik}-k)} \sum_{k=0}^{(j_{ik}-j_{sa}^{ik}-D-s)} \sum_{l_k=0}^{(n_i-j_s+1)} \sum_{n_{is}=n+l_k}^{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_1}}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-l_{k_1}-l_{k_2})!}{(n_i-n+l_{k_1}-l_{k_2})! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}^{ik}-1)!}$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} + s - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s \geq D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 {}_{fz}S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D}^{l_i+j_{sa}-k-s+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=\mathbf{n}+j_{sa}-j_{ik}+\mathbb{k}_2)}^{(n_{ik}+j_{sa}-j_{ik}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - j_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - j_{sa} - 1)!}{(n_{sa} - j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
 & \frac{(l_s - k - j_{sa}^{ik})!}{(l_s - j_{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \\
 & \sum_{k=1}^{D+l_s-j_{sa}-l_{sa}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-k} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j_{sa}^s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
 \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_{ik}, j_{sa}}^{DOS} \sum_{i=1}^{D-n+1} \sum_{j_{ik}=l_{ik}+n-D-s}^{j_{sa}^{ik}-k-s} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}^{ik}-k-s} \\ & \sum_{i=n+\mathbb{K}}^{(n_i-n_{ik}-\mathbb{K}_1+1)} \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\ & \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{j_{ik}=l_{ik}+n-D}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} = l_i \wedge j_{sa} - s = j_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1$$

$$s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\},$$

$$s \leq 6 \wedge s = s - \mathbb{k} \wedge$$

$$\mathbb{k}_{z_1} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-s, j^{sa}=l_s+j_{sa}-k+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(n_i=n+l_k, n_{is}=n+l_k+j_{sa}^{ik}-j_{ik}+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+l_k+j_{sa}^{ik}-j_{ik}+1)}^{(n_{ik}-j_{sa}-l_{k_2})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}-j_{sa}-l_{k_2})} \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(j_{ik} - n_{ik} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j^s < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$S_{j_{sa}^{ik}}^{DO} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{l_i+j_{sa}-k-s+1}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_i-j_{ik}-\mathbb{K}_1-1)}^{(n_i-j_{ik}-1)} \sum_{(n_{ik}=n+j_{sa}+1)}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2}$$

$$\frac{(n_{ik} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - \mathbb{K}_1 - 1)! \cdot (n_{ik} - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{ik} - \mathbb{K}_2 - 1)!}{(j^{sa} - \mathbb{K}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{K}_1}^n \sum_{(n_{is}=n+\mathbb{K}_1+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1, j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s \leq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_s+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{sa}=l_s+j_{sa}-k+1)}^{(j_{sa}-k)} \cdot \\
& \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k+j_{ik}+1}^{(j_{ik}-n_{ik}-1)} \sum_{n_{sa}=n-j^{sa}+1}^{(j_{ik}-j_{sa}-1)} \cdot \\
& \frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
& \frac{(j_{ik} - n_{ik} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (j_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \cdot \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa}^i \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^s, \dots, j_{sa}^{ik}\} \wedge$$

$$\geq 6 \wedge j_{sa}^i = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 = \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa})!} +$$

$$\sum_{k=1}^{D-n+1} \frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{sa} - j_{sa}^{ik} - k + 1)! \cdot (j_{sa}^{ik} - l_{sa} - k + 1)!} \cdot \frac{l_{sa} - k + 1}{j_{sa}^{ik} - l_{sa} - k + 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_1}^n \sum_{n_{ik} = n_{sa} + j_{ik} - \mathbb{K}_2 - j_{ik} + 1}^{n_i - j_{ik} - \mathbb{K}_2 - 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - l_i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - l_i)! \cdot (\mathbf{n} - j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \big) \wedge$$

$$(\mathbf{n} - \mathbf{n} + 1) \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!}$$

$$\frac{(n_{sa} - j^{sa} - 1)!}{(n_{sa} - j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j^s < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$S_i^{DO} = \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} (n_i - j_{ik} - \mathbb{K}_1 + 1) \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i+l_i+1)} \\
& \sum_{n=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}_1-j_{ik})}^{(n_i+l_i+1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1-j_{sa}-\mathbb{k}_2)}^{(n_i+l_i+1)} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1-j_{sa}-\mathbb{k}_2)}^{(n_i+l_i+1)} \\
& \frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(n_i + j_{sa}^{ik} - j^{sa} - k - 1)!}{(n_i + j_{sa}^{ik} - j^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + l_i - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
& ((D \geq n < n \wedge l_s = D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge \\
& D \geq n < n \wedge l = \mathbb{k} > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge
\end{aligned}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_{ik}+\mathbf{n}+j_{sa}-D-j_{ik}^{ik}+1}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+j_{sa}-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-1} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}{(j_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
 & \sum_{i=1}^{D+l_s+s-\mathbf{l}_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOS} = \sum_{k=1}^{D-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{j_{ik}-k+1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{lk}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j^{sa}+s-n-l_s-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - l_s \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - l_s \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge \\
& D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s, \{j_{sa}^{i-1}, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge \\
& s \geq 6 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow
\end{aligned}$$

$$\begin{aligned}
 f_Z^{SDSD} S_{j_{ik}, j^{sa}} = & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_i+j_{sa}-k-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
 \end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1-j_{ik})}^{(n_i-\mathbb{k}_1+1)}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2}^{(\quad)} \sum_{j^{sa}=\mathbf{n}+j_{sa}-D-s}^{(\quad)} (n_{ik} - j^{sa} - \mathbb{k}_2)!}{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i + j_{sa} - j^{sa} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge j_{ik}^{ik} + 1 \leq j_{ik}^{ik} < j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n-j_{sa}-D-s-1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-1} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(j_{ik} + k - j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + k - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D)}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{ik}=j_{ik}+j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j_{ik}+j_{sa}^{ik}-j_{sa})}$$

$$\sum_{(n_i=j_{ik}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_{sa}^{ik})} \sum_{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})}^{(n_{is}=n+l_s+j_{sa}^{ik}-j_{sa})}$$

$$\sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{sa})}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{sa})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{sa})}^{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{sa})}$$

$$\frac{(n_i + j_{ik} - j_{sa} - j^{sa} - l_{sa} - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_{ik} - l_{k_1} - l_{k_2})! \cdot (\mathbf{n} + j_{sa} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} - l_i - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa})$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_{sa}^{ik}}^{SD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=\mathbf{l}_{ik}+n-D)}^{(j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=\mathbf{l}_{sa}+n-D}^{(\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+1)} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_i + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - j^{sa} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{l_i=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{b_1} < j_{sa} - 1 \wedge j_{sa}^{b_2} < j_{sa}^{ik} - 1 \wedge$$

$$s; \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_{b_1+b_2} = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{D-n+1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D-\mathbf{n}+1} \sum_{(j_{ik}=l_{sa}+j_{sa}^{ik}-D-j_{sa}^{ik})}^{(l_{ik}-k-j_{sa}^{ik})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{ik}-k-j_{sa}^{ik})} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \cdot \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-j_{sa}-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa}^{ik}-j_{ik}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} = l_i \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq \mathbf{n} + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}, \dots, j_{sa}^i\}$$

$$s \geq \mathbf{n} \wedge s = s + \mathbb{k}$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - j_{sa}^{ik} - k} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1} \frac{(l_{sa} + j_{sa}^{ik} - k - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_1}^n \sum_{n_{ik} = n_{sa} - j_{ik} + 1}^{n_i - j_{ik} - \mathbb{K}_1 - 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - \mathbb{K}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - j_{sa}^{ik} - k} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{l_{sa} - k + 1} \sum_{j_{sa} = j_{sa}}^{l_{sa} - i^{l+1}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l-1} \sum_{(j_{sa}^{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{l-1} \sum_{j_{sa}^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}^{lk}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(l_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{lk})}^{(\quad)} \sum_{j_{sa}^{sa}=j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_j^{SD} &= \sum_{k=1}^{(l_s + j_{sa}^{ik} - k)} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{l_{sa} - k + 1} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \\ &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{sa} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_i + j_{ik} - j^{sa} - \mathbb{k}_2)} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(n_i + j_{sa}^{ik} - j_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^i \sum_{(j_{ik}=j_{sa}^{ik})}^{(\cdot)} \sum_{j^{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}}}{\frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \frac{(D-l_i)}{(D+s-l_i-1) \cdot (n-s)!}}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{i-1}, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k}_z = \mathbb{k}_1 \vee \mathbb{k}_2 \Rightarrow$$

$$Z_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\cdot)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+2}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \left. \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \right)
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}^{ik}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} - k + 1)!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{il-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{(j_{sa}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \frac{l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1}{(n_i-j_s)} \\
& \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{ik})}^{()} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{il} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{i_{ik}, j_{sa}}^{DOSD} = \binom{l-1}{\sum_{k=1}^{\mathbb{k}} (j_{ik} - j_{sa}^{ik} + j_{sa} - 1)} \sum_{\substack{l_s + j_{sa} - \mathbf{l}_{sa} \\ j_{sa} = j_{sa} + 1}} \sum_{\substack{n_i = \mathbf{n} + \mathbb{k} \\ (n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}}^n \sum_{\substack{(n_i - j_{ik} - \mathbb{k}_1 + 1) \\ (n_{sa} = \mathbf{n} - j_{sa} + 1)}} \sum_{\substack{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2}} \\ \frac{(n_i - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^{\mathbb{k}} \sum_{\substack{l \\ (j_{ik} = j_{sa}^{ik})}} \sum_{j_{sa}^{sa}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{\substack{(n_i - j_{ik} - \mathbb{k}_1 + 1) \\ (n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}} \sum_{\substack{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2 \\ n_{sa} = \mathbf{n} - j_{sa} + 1}}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg)$$

$$\left(\sum_{k=1}^{i\mathbf{l}-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}^{ik}+1)} \sum_{j^{sa}=j_{sa}^{ik}-k}^{l_s+j_{sa}^{ik}-k} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{i\mathbf{l}-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}^{ik}-k+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{i^{l+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \cdot \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l-1)! \cdot (\mathbf{n}+j_{ik}-j^{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j_{ik} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i^l}^{(\cdot)} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \right) + \\
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right.
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l - k - 1)!}{(l + j_{sa}^{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{sa} + j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \right. \\ \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik})}^{(j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}^{(j_{sa}=j_{sa})} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) +$$

$$\begin{aligned}
& \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} + j_{ik} - k - 1)!}{(l_{ik} + j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=1}^{i_l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa} - j_{ik} - k)!} \cdot \frac{(j_{ik} - j_{sa}^{ik} - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i - j_{sa}^{ik} - (n + j_{sa} - j^{sa} - s))!} - \\
& \sum_{k=1}^{i_l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n + l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \frac{(n_i - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - j_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) +$$

$$\left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - j_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right)$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}-j_{sa}^{ik}+1)!} \frac{j_{sa}^{ik}+2}{j_{sa}^{ik}+1} \frac{(l_{sa}-k+1)!}{(j_{sa}^{ik}+1)!} \frac{j_{sa}^{ik}+2}{j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{i-l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}^{ik}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2-\mathbb{k}_1)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-j_{sa}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n)!}{(D+j^{sa}+s-n-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq n + l_{ik} + j_{sa} - l_{sa} - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_1, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq n - s = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left(\sum_{i=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{ik}+1} \sum_{j_{sa}^{ik}=1}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-k} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - k)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l-1} \sum_{j_{sa}=n-l_{sa}-j_{sa}^{ik}+2}^{(l_s+j_{sa}^{ik}-k)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{l_{sa}-k+1} j_{sa}=l_{sa}+n-D \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l_{sa} - l_{sa}^{ik} + 1} \sum_{(j_{ik} = j_{sa}^{ik})}^{()} j_{sa}^{sa} = l_{sa} + \mathbf{n} - D - s$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_1}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{K}_1 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{(n_{sa} = \mathbf{n} + \mathbb{K}_2 - j_{sa}^{ik} - \mathbb{K}_2)}^{(n_{ik} + j_{sa}^{ik} - j^{sa} - \mathbb{K}_2)} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - \mathbb{K}_1 - 1)! \cdot (n_{sa} - n_{ik} - j_{sa}^{ik} - \mathbb{K}_2 - 1)!}.$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - \mathbb{K}_1 - 1)! \cdot (n_{sa} - n_{ik} - j_{sa}^{ik} - \mathbb{K}_2 - 1)!}.$$

$$\frac{(n_{ik} - j_{sa}^{ik} - \mathbb{K}_2 - 1)!}{(j_{sa}^{sa} - j_{ik} - j_{sa}^{ik} - \mathbb{K}_2 - 1)! \cdot (n_{ik} + j_{sa}^{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{K}_2)!}.$$

$$\frac{(n_{sa} - j_{sa}^{ik} - 1)!}{(n_{sa} + j_{sa}^{ik} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa}^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{D - j^{sa} - s - \mathbf{n} - l_i} \sum_{(j_{ik} = j_{sa}^{sa} + j_{sa}^{ik} - j_{sa})}^{()} \sum_{j_{sa}^{sa} = l_i + \mathbf{n} + j_{sa} - D - s}^{l_s + j_{sa} - k}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{K}_1}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{K}_1 + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{sa} - j_{sa}^{ik} - \mathbb{K}_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} s_z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \\ &\sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \end{aligned}$$

$$\begin{aligned}
& \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - k - 1)!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j_{sa}^{ik} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-k+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik} - k + 1)!}{(l_{ik} - j_{sa}^{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{(j_{sa}=j_{ik}-j_{sa}-j_{sa}^{ik})}$$

$$\sum_{(n_i=n+\mathbb{k})}^{(n_i=n+\mathbb{k})} \sum_{(n_i=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}$$

$$\sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i + j_{ik} + j_{sa} - j^{sa} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{sa} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} - l_{sa} - s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} - 1 \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - j_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - l_{sa} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$\mathbf{n} > \mathbf{n} - 1 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j^{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}+j_{sa}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \right)$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \frac{(l_s+j_{sa}^{ik}-k)!}{(j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1)!} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_i=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - j_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \frac{(l_s+j_{sa}^{ik}-k)!}{(j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1)!} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{i=1}^{l_{sa}-l+1} \sum_{j_{ik}=j_{sa}}^{n_{sa}-l+1} \sum_{n_{ik}=n_{sa}-j_{sa}+1}^{n_{sa}-l+1} \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(j_{ik} - j_{sa} - l_{sa} - j_{sa})!} \cdot$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n_{sa}-j_{sa}+1)}^{(n_{ik}=n_{sa}-j_{sa}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}=n-j^{sa}+1} \frac{(n_{ik} - j_{ik} - \mathbb{K}_2 - 1)!}{(j_{ik} - j_{sa} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - j_{sa} - l_{sa} - j_{sa})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_i + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k}$$

$$\mathbb{k} - z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^i \sum_{l=0}^{()} \sum_{j_{sa}=j_{sa}^{l+1}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - n_{is} - n_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{is} - \mathbb{K}_2 - 1)!}{(n_{sa} - j_{ik} - n_{is} - 1) \cdot (n_{ik} + j_{sa}^{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{i l - 1} \sum_{(j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}^{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{sa}-j_{sa}^{ik}-\mathbb{K}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=0}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=\mathbf{n}_{ik}-j_{sa}-\mathbb{k}_2}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq \mathbf{n} + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} -$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=0}^{l_{sa} + j_{sa}^{ik} - l - j_{sa}^{ik} - 1} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n - j_{sa}^{ik} - \mathbb{k}_2}^{n - j_{sa}^{ik} - 1} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{ik} - j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{sa} - j_{sa}^{ik} - 1}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik} = j_{sa}^{ik} + 1)}^{(l_s + j_{sa}^{ik} - k)} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} + j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{(j_{ik} = j_{sa}^{ik})} \sum_{a=j_{sa}}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1+1)}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\binom{n}{n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + \mathbf{n} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{n} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + \mathbf{n} > l_s \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge (j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(j_{ik} + l_{sa} - j^{sa} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=i^l}^{(l_{ik}-i^l+l_{sa}-i^l+1)} \sum_{j_{ik}=j_{sa}}^{(j_{ik}-j_{sa})} \sum_{j_{sa}=j_{sa}^{ik}}^{(j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_1+j_{ik}-j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - \mathbb{k}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}^{ik}+1}^{l_s+j_{sa}-k}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=0}^{\binom{n}{\mathbf{n}+\mathbb{k}}} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}^{ik}}^{\binom{n}{\mathbf{n}+\mathbb{k}}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_1+1)}^{\binom{n}{\mathbf{n}+\mathbb{k}}} \sum_{n_{sa}=\mathbf{n}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\binom{n}{\mathbf{n}+\mathbb{k}}} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + \mathbf{n} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + \mathbf{n} > l_s \wedge$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1) \wedge (j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbb{k}_1 + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(j_{ik} + l_{sa} - j^{sa} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=i^l}^{(l_{ik}-i^l+1)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i^l+1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-i^l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i l - 1} \sum_{(j_{ik}=j_{sa}^{ik}+1, \dots, j_{ik}=j_{sa}^{ik}-j_{sa}^{ik})} \sum_{(n_i-j_s+1, \dots, n_i-j_s+1)} \sum_{(n+l_k, \dots, n+l_k)} \sum_{(n_{is}=n_{is}+l_k+j_{sa}^{ik}-j_{ik})} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}, \dots, n_{ik}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}^{ik}=j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i l-1} \sum_{j_{sa}^{ik} = j_{sa} - j_{sa}}^{(j_{sa}^{ik} + j_{sa} - j_{sa})} \sum_{j_{sa} = j_{sa} + 1}^{l_{ik} + j_{sa} - i l - j_{sa}^{ik} + 1} \right. \\ \left. \sum_{n_i = \mathbf{n} + \mathbb{K}}^{(n_i - n_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{sa} - j_{sa} - 1} \right. \\ \left. \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \right. \\ \left. \sum_{k=i l}^{(j_{sa}^{ik} + j_{sa} - j_{sa})} \sum_{j_{sa}^{ik} = j_{sa} - j_{sa}}^{(l_{ik} + j_{sa} - i l - j_{sa}^{ik} + 1)} \sum_{j_{sa} = j_{sa}}^{(j_{sa}^{ik} + j_{sa} - j_{sa})} \right. \\ \left. \sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 - j_{ik} + 1}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2} \right. \\ \left. \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \right.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \cdot$$

$$\left(\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa}-1)} \sum_{j^{sa}=j_{sa}+2}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_{ik}=j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}=\mathbf{n}-j^{sa}+1}$$

$$\frac{(j_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}_1}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_{ik}=j_{ik}-j^{sa}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^n \sum_{l=i}^n \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j^{sa}+j_{sa}^{ik}-1)l_{ik}+j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j^{sa}=l_{ik}+j_{sa}-i}^{l_{sa}-i} \frac{(l_{ik}-i)^{l+1}}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_1 - 1)!}{(n_{ik} - j^{sa} - n - \mathbb{K}_1 - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - i)^{l_{ik}-i}}{(l_{ik} - j_{ik} - i - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\sum_{i=1}^{\lfloor l \rfloor} (j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}^{()}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}}^{()} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 2 \wedge \mathbb{k}_z = \mathbb{k}_1 \vee \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^{l_{ik}-i} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} + \\
& \left(\sum_{k=1}^{i-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{l_{sa}-k+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \right)
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=i}^{l_{ik}-l+1} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}-l+1} \sum_{j_{sa}=j_{sa}^{ik}+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_1-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - \mathbb{k}_2 - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=1}^{i-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}
\end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{a=j_{sa}}^{(n)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n-\mathbb{k}_1+1)}^{(n)} \sum_{n_{sa}=n+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n)} \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq n + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge n + j_{sa}^{ik} - j_{sa} >$$

$$D + j_{sa} - n < l_s \leq D + j_{sa}^{ik} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = n + \mathbb{k} \wedge$$

$$n = n + \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \right)$$

$$\begin{aligned}
& \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \left(\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{n_{ik} - \mathbf{n} - l_{sa} - j^{sa} + 1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{ik}-j_{sa}-1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-n-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=\mathbf{i}l}^{(j^{sa} + j_{sa}^{ik} - j_{sa} - 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{l_{ik} + j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1} \sum_{(j^{sa} = l_{sa} - D)}^{j_{sa} - \mathbf{i}l - j_{sa}^{ik} + 1} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n_i - j_{ik} - 1)} \sum_{(n_{ik} = \mathbf{n} - j^{sa} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - j_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - \mathbf{n} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - \mathbf{i}l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - \mathbf{i}l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{i}l}^{(l_{ik} - \mathbf{i}l + 1)} \sum_{(j_{ik} = l_{ik} + \mathbf{n} - D)}^{l_{sa} - \mathbf{i}l + 1} \sum_{(j^{sa} = l_{sa} - D)}^{l_{sa} - \mathbf{i}l + 1} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{(n_{sa} = \mathbf{n} - j^{sa} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s - 1)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \binom{D+l_s+s-\mathbf{n}-l_i}{k} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{l_s+j_{sa}-k} \binom{l_s+j_{sa}-k}{j_{ik}-j^{sa}-j_{sa}^{ik}+j_{sa}} \cdot j^{sa-D-s}$$

$$\sum_{n=n+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{is}-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{is}-j_s+1)}$$

$$\frac{(n_{ik} + j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - j_{sa}^{ik} - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} - \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} - 1 \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{ik}-k+1)} j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_{sa}+j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ & \left(\sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \left. \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \right) \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+1} \frac{(l_{ik}-k+1)!}{(j_{ik}-l_{sa}+\mathbf{n}+j_{sa}^{ik}-j_{sa})!} \frac{l_{sa}-k+1}{j^{sa}-l_{sa}+j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - l_{sa} - j^{sa} - l_{ik})! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=D+l_{ik}+j_{sa}-\mathbf{n}-l_{sa}-j_{sa}^{ik}+2}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + {}_i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k={}_i l - j_{sa}^{ik} - l_{ik} + \mathbf{n} - D}^{(j^{sa} + j_{sa}^{ik} - l_{sa} - 1)} \sum_{l_{ik}+j_{sa}-{}_i l-j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-l_{sa}-1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - {}_i l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - {}_i l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{(l_{ik}-i)^{l+1}} \sum_{(j_{ik}=l_{ik}+n-D)}^{l_{sa}-i^{l+1}} \sum_{j_{sa}=l_{ik}+j_{sa}-i^{l-j_{sa}^{ik}+2}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
& \frac{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)!}{(l_{ik} - j_{ik} - i^{l-j_{sa}^{ik}} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \left(\frac{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{s=1}^{D+l_s+s-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{j_{ik} j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{j_{sa}=j_{sa}+1}^{(n_{sa}-k+1)} \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{sa}-j_{sa}+1)} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{j_{sa}=j_{sa}}^{(n_{sa}-k+1)}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - j_{sa})!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{l_{sa}-k+1} \sum_{j_{sa}+1}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}}^{n, D} &= \sum_{k=1}^{l-1} \sum_{i=1}^{()} \sum_{j_{sa}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{l_{sa}-k+1} \\ &\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=1}^{()} \sum_{i=1}^{()} \sum_{j_{sa}=j_{sa}^{ik}}^{()} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - l_{sa})! \cdot (n - j_{sa})!} \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(n_{ik}=j^{sa}+j_{ik}-j_{sa})}^{(n_{sa}=l_{sa}-k+1)} j^{sa}=l_i - D-s \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{(n_{is}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - j_{sa} - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - n - l_i \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j_{sa}=j_{sa}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \\
& \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-i-j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s + k - 1)!}{(l_s + j_{sa} - j_{ik} - n_{sa})! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i - j_{sa}^{ik} - l_i - j_{sa}^{ik} - s)! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} - \\
& \sum_{k=1}^{i l} \sum_{(j_{ik}=j_{sa}^{ik})}^{()} \sum_{j_{sa}=j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa}^{ik} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n - l_s \leq D - n + 1 \wedge$$

$$j_{sa} - j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}^{i_1}+j_{sa}^{i_1}-j_{ik})}^{(n_{is}^{i_1}+1)}$$

$$\frac{\sum_{n_{ik}=n_{is}+j_{sa}^{i_1}-j_{sa}-j_{ik}}^{()} \sum_{j_{sa}^{i_1}=n_{ik}+j_{sa}-\mathbb{k}_2}^{()} (n_i + j_{ik} + j_{sa} - j_{sa}^{i_1} - j_{sa} - j_{sa}^{i_1} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1})!} \cdot$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1})!} \cdot$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{i_1} - j_{sa} - s - j_{sa}^{i_1} - \mathbb{k}_1 - \mathbb{k}_2)!}{(D + j^{sa} + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - j_{sa}^{ik} -$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{ik} - j_{ik})!}{(l_{ik} - j_{ik} - n_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_i-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l_i-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-l_i-1)! \cdot (\mathbf{n}+j_{ik}-j^{sa}-s)!} \\
& \sum_{k=0}^{\mathbb{k}_1} \sum_{(j_{ik}=j_{sa}^{lk})} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{lk}-j_{ik}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-\mathbf{n}-l_i)! \cdot (\mathbf{n}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D+s-\mathbf{n}+1$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} < j^{sa} < j_{ik}+j_{sa}-s \wedge$$

$$l_i+j_{sa}^{lk}-1 = l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} = l_{ik} \wedge l_i+j_{sa}-s > l_{sa} \wedge$$

$$D+s-\mathbf{n}-l_i \leq D+l_s+s-\mathbf{n}-1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^s < j_{sa}^{ik}-1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 {}_{fz}S_{j_{ik}, j^{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{lk}+1)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=j_{sa}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} - \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
 \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s+j_{sa}^{ik}-j_{ik}-k)! \cdot (j_{ik}-l-1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa}^{sa}-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}-j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i - j_{sa} - s > -l_i \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s - s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\}$$

$$s \geq \mathbb{k} \wedge s = s + \mathbb{k},$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})} j^{sa} =$$

$$\sum_{n_i=n_{ik}+j_{ik}+1}^n (n_{ik}=n_{sa}+j_{ik}+1) \quad n_{sa}=n_{ik}+j_{ik}+1$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - n_{sa} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_{sa}+j_{sa}^{ik}-k-j_{sa}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1))$$

$$D \geq n < n \wedge I = \mathbb{K} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s \leq 6 \wedge s = s \leq \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}-j_{sa}^{ik}-1)}^{(l_{ik}-k-1)} \frac{(l_{ik}-k-1)!}{j^{sa}+j_{sa}-k-j_{sa}^{ik}+1} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_{ik}-j_{ik}-\mathbb{k}_1+1)!}{(j_{ik}-2)! \cdot (n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\
& \frac{(j_{sa}-n_{ik}-\mathbb{k}_2-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{ik}-j_{sa}^{ik})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\end{aligned}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \binom{D+l_s+j_{sa}-n-l_{sa}}{k} \sum_{j_{ik}=j^{sa}-j_{sa}+k}^{j_{ik}-j_{sa}+1} \sum_{j_{sa}=D-s}^{j_{sa}-D-s} \binom{j_{sa}-D-s}{j_{sa}-D-s}$$

$$\sum_{n=\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}$$

$$\sum_{k=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} - n_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D - l_i) \leq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{sa}}^{DQSD} = \sum_{k=1}^{iL-1} \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{(\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_i+j_{sa}-k-s+1} \sum_{n_i=\mathbf{l}_i+\mathbb{K}-(\mathbf{l}_{ik}-k-\mathbb{K}_1+1)}^n \sum_{n_{ik}=\mathbf{n}-j_{ik}+1}^{(\mathbf{l}_{ik}-k-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{iL-1} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_i+j_{sa}-j_{sa}^{ik}}^{\mathbf{l}_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{\mathbf{n}} \sum_{l=0}^{l_i+j_{sa}-i^{l-s}+1} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{(j_{ik}=j_{sa}^{ik})} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_{ik}-k+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{ik}-j_{ik})! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-s-1)!}{(D+j^{sa}+s-\mathbf{n}-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l_s - \mathbb{k} > 0 \wedge$$

$$j_{sa}^{i_1} - 1 \wedge j_{sa}^{ik} < j_{sa}^{i_1} - 1 \wedge j_{sa}^{i_2} < j_{sa}^{ik} - 1 \wedge$$

$$s \cdot \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2 - j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s +$$

$$\mathbb{k}_z: z = 2, \dots, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_{ik}, j^{sa}}^{DOSD} &= \sum_{k=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^{l-1} - (j_{sa}^{ik} - k)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+j_{sa}-s+1} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_i+j_{sa}-s+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{i^{l-1} - (j_{sa}^{ik} - k)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+j_{sa}-s+1} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s}+1}
\end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} - j_{sa}^{ik} - s)!}{(l_{sa} - j^{sa} - \mathbf{n} - l_i)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{DOSD} S_{j_{ik}, j_{sa}} = \sum_{k=1}^{iI-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_i+n+j_{sa}^{ik}-D-s-1)} \sum_{j_{sa}=l_i+n+j_{sa}^{ik}-s}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{iI-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_i+j_{sa}-k-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - l_{sa} - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{n_{sa}-j_{sa}^{ik}-l_{sa}-j_{sa}^{ik}-D-s} \sum_{l=0}^{n_{sa}-j_{sa}^{ik}-l_{sa}-j_{sa}^{ik}-D-s} \sum_{s=0}^{n_{sa}-j_{sa}^{ik}-l_{sa}-j_{sa}^{ik}-D-s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2-1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_{sa} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - l_{sa} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{N} \setminus \{0\} \wedge$$

$$j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \leq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)} (j^{sa}+j_{sa}^{ik}-j_{sa}) l_{ik}+j_{sa}-k-j_{sa}^{ik}+1 \sum_{j^{sa}=j_{sa}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}-j_{sa}^{ik}+1)}^{(l_{ik}-k-1)} \sum_{j^{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^n \sum_{(j_{ik}=j_{sa}^{ik})}^{(l_{sa}-i)^{l+1}} \sum_{j_{sa}=j_{sa}}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n - j_{sa} - 1)!}{(n + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})!}{(l_s + j_{sa}^{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j_{sa} - s)!} - \\
& \sum_{k=1}^{l_s-1} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(l_{sa}-i)^{l+1}} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(l_{sa}-i)^{l+1}} \\
& \frac{(n_i + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{\sum_{i=1}^{\lfloor \frac{D}{2} \rfloor} \lfloor \frac{D-i}{2} \rfloor} \sum_{(j_{ik}=j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}}$$

$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}} \frac{(n_i+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2)! \cdot (\mathbf{n}+j_{ik}+j_{sa}-j_{sa}^s-s-j_{sa}^{ik})!} \cdot \frac{(D-l_i)}{(D+s-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (s-s)!}}{}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=i}^{\binom{D}{i}} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-i+1} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\sum_{k=1}^{l-1} \sum_{(l_{ik}-k+1)}^{(l_{ik}-k+1)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{ik}=j_{sa}^{ik}+1)} j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{K}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(l_i - k - 1)!}{(l_i + j_{sa}^{ik} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_i - k - 1)} \sum_{(j_{ik}=j_{sa}^{ik})}^{(j_{ik}=j_{sa}^{ik})} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1)}^{(n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D > \mathbf{n} < n \wedge \mathbf{n} - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$+ j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - (n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_z S_{i,j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa}-k+j_{sa}-k-j_{sa}^{ik}+1)} \sum_{j_{sa}=n-D}^{n-D} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n_{sa}-j_{ik}+1)}^{(n_i-j_{ik}-1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{l}}^{(\quad)} \sum_{(j_{ik}=j_{sa}^{ik})}^{l_{sa}-\mathbf{l}+1} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_{sa}-\mathbf{l}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{sa})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{()} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-\mathbb{k}_2)!}{(l_s+j_{sa}^{ik}-j_{sa}-j_{ik}-\mathbb{k}_2)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-n)!}{(D+j^{sa}+s-n-j_{sa}-j_{sa}^{ik}-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1)) \wedge$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n - l_i \leq l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$l_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(l_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{l_s - s - n - l_i} \sum_{(j_{ik}=l_i + j_{sa}^{ik} - D - s)}^{(l_{ik} - k + 1)} \sum_{j_{sa}=j_{ik} + j_{sa} - j_{sa}^{ik}}^{(l_{sa} - i^{l+1})} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}+j_{ik}+1)}^{(n_i - j_{ik} - \mathbb{K}_1 + 1)} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_{sa} - n_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - n_{ik} - \mathbb{K}_2 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{l_s - s - n - l_i} \sum_{(j_{ik}=l_i + j_{sa}^{ik} - D - s)}^{(l_{ik} - k + 1)} \sum_{j_{sa}=j_{ik} + j_{sa} - j_{sa}^{ik}}^{(l_{sa} - i^{l+1})} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}+j_{sa}^{ik} - j_{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{K}_1}^{(n_{ik} - j_s + 1)} \sum_{(n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)}^{(n_{ik} - j_s + 1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K}_1 - \mathbb{K}_2)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}}^{DO} &= \sum_{i=1}^{l-1} \sum_{j_{ik}=1}^{(n_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n_{ik}+n-D)} \\ &\sum_{i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=i}^{l_i} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-i^{l_i+1})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - n - \mathbb{k}_2)! \cdot (n - j^{sa})!} \\
& \frac{(l_{ik} - j_{ik} - i^{l_i} - 1)!}{(l_{ik} - j_{ik} - i^{l_i} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{l-1} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_i+j_{sa}-k-s+1}^{l_i+j_{sa}-k-s+1} \sum_{j_{sa}=l_i+j_{sa}-D-s}^{l_i+j_{sa}-D-s} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i-j_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_{sa}-n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} +$$

$$\sum_{k=1}^l \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j_{sa}=l_i+j_{sa}-l^{l-s}+1}^{l_i+j_{sa}-l^{l-s}+1} \sum_{j_{sa}=l_i+j_{sa}-D-s}^{l_i+j_{sa}-D-s} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot$$

$$\frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{i=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{k=0}^{l_s+j_{sa}-k} \binom{l_s+j_{sa}-k}{j_{ik}-j_{sa}^{ik}-j_{sa}} \cdot$$

$$\sum_{i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{k=n+\mathbb{k}}^{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-j_{ik})} \binom{n_i-j_s+1}{k} \cdot$$

$$\sum_{k=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \binom{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{k} \cdot$$

$$\frac{(n_i + j_{ik} - j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_i+j_{sa}^{ik}-k-s+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ & \frac{(l_{ik}-k-j_{sa}^{ik})!}{(l_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=i^l}^{(l_i+j_{sa}^{ik}-i^l-s+1)} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \end{aligned}$$

$$\frac{(l_{ik} - l_i - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+1)}^{(n_i+1)} \sum_{j_{ik}}$$

$$\frac{\sum_{n_{il}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1}^{(n_i+1)} \sum_{n_{il}=n_{is}+j_{sa}^{ik}-\mathbb{k}_2}^{(n_i+1)} \sum_{j_{ik}}^{(n_i+1)} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j^{sa} - s - j_{sa}^{ik})!}}{(n_i + j_{sa}^{ik} - j^{sa} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + l_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n - l_{sa} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=\mathbf{l}_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{\mathbf{l}_{ik}+j_{sa}-k-j_{sa}^{ik}+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{K}}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}+j_{sa}-\mathbf{n}-1} \\ \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=1}^{i^l} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j_{sa}^{sa}=\mathbf{l}_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{\mathbf{l}_{ik}+j_{sa}-i^l-j_{sa}^{ik}+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_s + j_{sa})!}{(l_{ik} - j_{ik} - l_s + j_{sa} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa} - s)!}{(l_s + j_{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{D+l_s+j_{sa}-\mathbf{n}-l_{sa}} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{(l_s+j_{sa}-k)} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(l_i - j_{sa}^{ik} + 1) < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik} j_{sa}}^{DOSD} = & \sum_{k=1}^{l-1} \sum_{j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{(\mathbf{l}_{sa}+j_{sa}^{ik}-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})} \\ & \sum_{n=\mathbf{n}+\mathbb{K}}^n \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1}^{(j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=1}^{(\mathbf{l}_{sa}+j_{sa}^{ik}-\mathbf{l}-j_{sa}+1)} \sum_{j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{(\mathbf{l}-j_{sa}+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})} \end{aligned}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l_i - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_i + j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_s - j_{sa}^{ik} - s - j_{sa}^{ik} - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \sum_{l_i=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+n_{ik}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-j_{ik}-D-s)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{ik}=l_i+n_{ik}^{ik}-D-s)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(l_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D - \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j}^{D_0} &= \sum_{i=1}^{l-1} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{ik}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-k} \\ &\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{ik}=n+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ &\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=l_s+j_{sa}-k+1}^{l_{sa}-k+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - n_{sa} - j_{ik})!}{(l_{ik} + j_{ik} - n_{sa} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{i^l} \sum_{(j_{ik}=j_{sa}^{ik})}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-i^{l+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa})}^{()} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_2} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i - j_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(n_i - k - 1)!}{(l_s + j_{sa} - j_{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_i - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} - \mathbf{n} - j_{sa}^{ik} \wedge \\
& D + s - \mathbf{n} < l_i \leq D + j_{sa} + s - \mathbf{n} - j_{sa}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge \\
& D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge
\end{aligned}$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{il-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)}^{(l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{sa}=l_{sa}+n-k+1}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - \mathbb{k}_2)!} \cdot \frac{(n - j_{sa} - 1)!}{(n_{sa} - n_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{sa} - k - j_{sa}^{ik})!}{(l_{sa} - k - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{il-1} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(l_s+j_{sa}^{ik}-k)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}-k+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{(j_{ik} - l_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{sa} = l_{sa} + n_{sa} - j_{ik} - j_{sa}^{ik} - k + 1}^{(j_{ik} - l_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = n + l_{sa} - j_{ik} - j_{sa}^{ik} - k + 1}^n \sum_{n_{ik} = n + l_{sa} - j_{ik} - j_{sa}^{ik} - k + 1}^{j_{ik} - l_{ik} - j_{sa}^{ik} - k + 1} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} - j_{ik} - j_{sa}^{ik} - k + 1}$$

$$\frac{(j_{ik} - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (j_{ik} - n_{ik} - j_{ik} - l_{k_1} + 1)!}.$$

$$\frac{(j_{sa} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_{k_1}}^n \sum_{(n_{is}=n+l_{k_1}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_{ik}, j_{sa}}^{DOSD} = & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{sa} - j_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=1}^{i^l-1} \sum_{(j_{ik}=l_{ik}+n-D)}^{(l_{ik}-k+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-k-j_{sa}^{ik}+2}^{l_{sa}-k+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{ik} - l + 1} \sum_{j_{ik}=l_{ik}+k-1}^{j_{ik}-1} \sum_{j^{sa}=l_{sa}+n-l_{ik}+1}^{j^{sa}-1} \\
& \sum_{n_i=n+l_{sa}-j_{ik}}^n \sum_{n_{ik}=n+l_{sa}-j_{sa}-j_{ik}}^{j_{ik}} \sum_{n_{sa}=n-j^{sa}+1}^{j_{sa}-1} \\
& \frac{(n_{ik} - n_{ik} - l_1 - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} - l_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{ik} - l_2 - 1)!}{(j^{sa} - l_2 - 1)! \cdot (l_{ik} + j_{ik} - n_{sa} - j^{sa} - l_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=n+l_{sa}}^n \sum_{n_{is}=n+l_{sa}+j_{sa}^{ik}-j_{ik}}^{(n_i-j_s+1)}
\end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (l_i + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D + s - \mathbf{n} < l_i \leq l_s + l_{sa} + j_{sa} - j_{sa}^{ik} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1)}^{\mathbf{l}_{sa}-k+1} \sum_{j_{sa}=\mathbf{l}_{sa}-D}^{\mathbf{l}_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_{ik} - k - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa})}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{\mathbf{l}_{sa}-k+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa})!} +$$

$$\sum_{i=l}^{(l_{ik} - i^{l+1})} \sum_{k=0}^{(l_{sa} - i^{l+1})} \sum_{j_{ik}=i^l}^{(j_{ik} - i^{l+1} + \mathbf{n} - D)} \sum_{j_{sa}=j_{ik} - j_{sa}^{ik}}^{(j_{sa} - j_{ik} - \mathbb{k}_1 - 1)}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{ik}=\mathbf{n}-j_{ik}+1}^{(n_{ik} - j_{ik} - \mathbb{k}_1 - 1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \mathbb{k}_1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l_i - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - i - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa}^{ik} - j_{ik} - i - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge l_i + j_{sa} - s = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\}$$

$$s \geq \mathbb{k}_1 \wedge s = s + \mathbb{k},$$

$$z: z = \mathbf{n} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_{ik}, j^{sa}}^{DOSD} = \sum_{k=1}^{i l-1} \sum_{(j_{ik}=l_{ik}+\mathbf{n}-D)}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}-k-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{i=0}^{l-1} \sum_{(j_{ik}=l_{ik}+n-D) \atop (j_{sa}=l_{ik}+n-D)}^{(n_{ik}-k+1) \atop (n_{sa}-k-s+1)} \sum_{j_{sa}^{ik}=l_{ik}+n-D}^{j_{sa}^{ik}+2}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - l_{ik})! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - k - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - k + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=0}^{l-1} \sum_{i=0}^{(l_{ik}-i^{l+1})} \sum_{(j_{ik}=l_{ik}+n-D) \atop (j_{sa}=l_i+n+j_{sa}-D-s)}^{l_i+j_{sa}-i^{l-s+1}}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - j_{ik} - l + j_{sa}^{ik})!}{(l_{ik} - j_{ik} - l + j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} - j_{sa} - l_s + j_{sa}^{ik})!}{(j_{ik} + l_{sa} - j_{sa} - l_s + j_{sa}^{ik} + 1)! \cdot (j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(l_s + j_{sa} - \mathbf{n} - s)!}{(\mathbf{n} + j_{sa} - \mathbf{n} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{n_{ik}=\mathbf{n}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1}^{D+l_s+j_{sa}-l_{sa}} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa})}^{(j_{sa}^{ik}-j_{sa})} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-k} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}+j_{sa}^{ik}-j_{ik})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa} - j^{sa} - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s + j_{sa}^{ik} - j_{ik} - k)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 2 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 \Rightarrow$$

$$f_Z S_{j_{ik}, j_{sa}}^{DOSD} = \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s-1)} \sum_{(j_{sa}=\mathbf{l}_{ik}+j_{sa}-k-s+1)}^{(\mathbf{l}_{ik}+j_{sa}-k-s+1)} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}_{ik}-\mathbb{K}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_2+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \frac{(n_i-j_{ik}-\mathbb{K}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{K}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{K}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{K}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \frac{(\mathbf{l}_{ik}-k-j_{sa}^{ik})!}{(\mathbf{l}_{ik}-j_{ik}-k+1)! \cdot (j_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(\mathbf{l}_{sa}+j_{sa}^{ik}-\mathbf{l}_{ik}-j_{sa})!}{(j_{ik}+\mathbf{l}_{sa}-j_{sa}-\mathbf{l}_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-\mathbf{l}_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-\mathbf{l}_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{i^{l-1}} \sum_{(j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s)}^{(\mathbf{l}_{ik}-k+1)} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-j_{sa}^{ik}}^{\mathbf{l}_i+j_{sa}-k-s+1}$$

$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - k - j_{sa})!}{(l_{ik} - j_{ik} - k + i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_{ik}-i^l+1)} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_i+j_{sa}-i^{l-s+1}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{ik} - i^l - j_{sa}^{ik})!}{(l_{ik} - j_{ik} - i^l + 1)! \cdot (j_{ik} - j_{sa}^{ik} - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+j_{sa}-n-l_{sa}} \sum_{(j_{ik}=l_i+n+j_{sa}^{ik}-D-s)}^{(l_s+j_{sa}^{ik}-k)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}+j_{sa}^{ik}-}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}-j^{sa}-s-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-k-1)!}{(l_s+j_{sa}^{lk}-j_{ik}-1)! \cdot (j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
& \frac{(D-l_s)!}{(D+j_{sa}+s-n-l_s-j_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

DİZİN

B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.1/3
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.2.1/3
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.2.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.3.1/3
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.3.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.1/2
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1/228
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1/290

Bağımlı ve bir bağımsız olasılıklı farklı bir bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.2.1/203
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.2.1/228

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.2.1/290

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.3.1/203
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.3.1/228
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.3.1/290

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.4.1.1/3
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.4.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.4.2.1/3
toplam düzgün simetrik olasılık, 2.3.1.2.1.4.2.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.4.3.1/3
toplam düzgün simetrik olasılık, 2.3.1.2.1.4.3.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.1/207
toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1.1/236

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/296-297

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.2.1/207

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.2.1/236

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.2.1/296-297

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.3.1/207

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.3.1/236

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.3.1/296-297

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.6.1.1/3

toplam düzgün simetrik olasılık, 2.3.1.2.1.6.1.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.6.2.1/3

toplam düzgün simetrik olasılık, 2.3.1.2.1.6.2.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.6.3.1/3

toplam düzgün simetrik olasılık, 2.3.1.2.1.6.3.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı

simetrik olasılık, 2.3.1.1.1.1.1.1/105

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1.1/85

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/150-151

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

simetrik olasılık, 2.3.1.1.1.1.1.1/105

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1.1/85

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/150-151

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

simetrik olasılık, 2.3.1.1.1.1.1.1/105

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1.1/85

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/150-151

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.1.1.1/4

toplam düzgün simetrik olasılık, 2.3.1.2.2.1.1.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.1.2.1/4

toplam düzgün simetrik olasılık, 2.3.1.2.2.1.2.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.1.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.1.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.2.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.2.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.2.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.2.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.2.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.2.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.2.3.1/3-4

toplam düzgün simetrik olasılık,
2.3.1.2.2.2.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.4.1.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.4.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.4.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.4.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.4.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.4.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.6.1.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.6.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.6.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.6.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.6.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.6.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.7.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.7.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.7.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.7.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.7.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.7.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.7.3.1/3-4

toplam düzgün simetrik olasılık,
2.3.1.2.2.7.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin ilk
ve herhangi bir durumunun bulunabileceği
olaylara göre

simetrik olasılık, 2.3.1.1.3.1.1.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.1.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.1.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.1.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.1.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.1.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.2.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.3.2.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.2.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.3.2.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.2.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.2.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.2.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.2.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin
herhangi bir durumuna bağlı

simetrik olasılık, 2.3.1.1.4.1.1.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.4.1.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.4.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin herhangi iki durumuna bağlı

simetrik olasılık, 2.3.1.1.4.1.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.4.1.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.4.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin herhangi iki durumuna bağlı

simetrik olasılık, 2.3.1.1.4.1.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.4.1.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.4.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin her
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.4.1.1.1/838

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız

simetrisinin her durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.4.1.2.1/838

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin her durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.4.1.3.1/838

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.1.1.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.1.1.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.1.2.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.1.2.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.1.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.1.3.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.2.1.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.5.2.1.1/3
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.2.1.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.2.2.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.5.2.2.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.2.2.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.2.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.2.3.1/4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.2.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.1.1.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.1.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.1.2.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.1.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.1.3.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.1.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.2.1.1/12
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.2.1.1/13

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.2.2.1/12
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.2.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.2.3.1/8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.2.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.1.1.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.1.1.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.1.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.1.2.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.1.2.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.1.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.1.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.1.3.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.1.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.2.1.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.6.2.1.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.2.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu

bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.2.2.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.6.2.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.2.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.3.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.1.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.4.1.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.4.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.2.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.4.2.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.4.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.4.3.1/3-4
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.4.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.6.1.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.6.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.6.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.6.2.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.6.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.6.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.6.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.6.3.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.6.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.7.1.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.6.7.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.7.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.7.2.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.6.7.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.7.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.7.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.7.3.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.7.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun

bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.1.1.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.1.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.2.1/7
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımlı durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.1.3.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.1.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.2.1.1/12
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.2.1.1/13

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.2.2.1/12
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.2.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.2.3.1/8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.2.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.4.1.1/7-8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.4.1.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bir bağımsız durumlu
 bağımsız simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.4.2.1/7-8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.4.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bir bağımsız durumlu
 bağımlı simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.4.3.1/7-8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.4.3.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bağımsız durumlu
 simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.4.4.1/7-8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.4.4.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bağımsız durumlu
 bağımsız simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.6.2.1/7-8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.6.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bağımsız durumlu
 bağımlı simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.6.3.1/7-8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.6.3.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımsız durumlu
 simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.7.1.1/12

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.7.1.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımsız durumlu
 bağımsız simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.7.2.1/12
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.7.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımsız durumlu
 bağımlı simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.7.3.1/8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.7.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bağımsız durumlu
 simetrisinin ilk herhangi bir ve son durumunun
 bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.1.1.1/5
 toplam düzgün simetrik olasılık,
 2.3.1.2.7.1.1.1/3-4

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.7.1.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı durumlu bağımsız
 simetrisinin ilk herhangi iki ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.1.2.1/5
 toplam düzgün simetrik olasılık,
 2.3.1.2.7.1.2.1/3-4

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.7.1.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı durumlu bağımlı
 simetrisinin ilk herhangi iki ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.1.3.1/5
 toplam düzgün simetrik olasılık,
 2.3.1.2.7.1.3.1/3-4

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.7.1.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımlı durumlu
 simetrisinin ilk herhangi iki ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.2.1.1/7

toplam düzgün simetrik olasılık,
2.3.1.2.7.2.1.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.2.1.1/12

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumda
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.2.2.1/7

toplam düzgün simetrik olasılık,
2.3.1.2.7.2.2.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.2.2.1/12

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumda
bağımlı simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.2.3.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.2.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.2.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumda
simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.4.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.4.1.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.4.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumda
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.4.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.4.2.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.4.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumda
bağımlı simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.4.3.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.4.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.4.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.6.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.6.1.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.6.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.6.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.6.2.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.6.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
bağımlı simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.6.3.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.6.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.6.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.7.1.1/7

toplam düzgün simetrik olasılık,
2.3.1.2.7.7.1.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.7.1.1/12

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.7.2.1/7

toplam düzgün simetrik olasılık,
2.3.1.2.7.7.2.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.7.2.1/12

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
bağımlı simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.7.3.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.7.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.7.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrinin ilk
herhangi iki ve son durumunun
bulunabileceği olaylara göre herhangi bir
ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.1.1.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.1.1.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.1.2.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.1.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.1.3.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.1.3.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.2.1.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.2.1.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.2.2.1/22

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.2.2.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.2.3.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.2.3.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.4.1.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.4.1.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.4.2.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.4.2.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.4.3.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.4.3.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.6.1.1/12-13

toplam düzgün olmayan simetrik olasılık,
2.3.1.3.10.6.1.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.6.2.1/12-13
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.6.2.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımlı simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.6.3.1/12-13
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.6.3.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.7.1.1/22
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.7.1.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımsız simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.7.2.1/22
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.7.2.1/23

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımlı simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.10.7.3.1/12-13
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.7.3.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrinin ilk
herhangi iki ve son durumunun
bulunabileceği olaylara göre herhangi iki
ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.1.1.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.1.1.1/17

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.1.2.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.1.2.1/17

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.1.3.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.1.3.1/17

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.2.1.1/29
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.2.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.2.2.1/29
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.2.2.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.2.3.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.2.3.1/17

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.4.1.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.4.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.4.2.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.4.2.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.4.3.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.4.3.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.6.1.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.6.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.6.2.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.6.2.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.6.3.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.6.3.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.7.1.1/29
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.7.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.7.2.1/29
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.7.2.1/30

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.7.3.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.7.3.1/17

VDOİHİ’de Olasılık ve İhtimal konularının tanım ve eşitlikleri verilmektedir. Ayrıca VDOİHİ’de olasılık ve ihtimalin uygulama alanlarına da yer verilmektedir. VDOİHİ konu anlatım ciltleri ve soru, problem ve ispat çözümlerinden oluşmaktadır. Bu cilt bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz olasılık dağılımlarında, simetrisinin herhangi iki durumuna bağlı toplam düzgün olmayan simetrik olasılığın, tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin herhangi iki durumuna toplam bağlı düzgün olmayan simetrik olasılık kitabının bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda, simetrisinin herhangi iki durumuna bağlı toplam düzgün olmayan simetrik olasılığın, tanım ve eşitlikleri verilmektedir.

VDOİHİ’nin diğer ciltlerinde olduğu gibi bu ciltte de verilen ana eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden birik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde dış kaynak kullanılmamıştır.

GÜLDÜNVA