

VDOİHİ

Bağımlı ve Bir Bağımsız Olasılıklı  
Farklı Dizilimsiz Bağımlı Durumlu  
Simetrinin İlk ve Herhangi Bir  
Durumunun Bulunabileceği Olaylara  
Göre Tek Kalan Düzgün Olmayan  
Simetrik Olasılık

Cilt 2.3.3.3.3.1.1.4

İsmail YILMAZ



**Matematik / İstatistik / Olasılık**

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**VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık Cilt 2.3.3.3.1.1.4**

*İsmail YILMAZ*

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## **KÜTÜPHANE BİLGİLERİ**

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*1. Bağımlı durumlu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan 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.

## VDOİHİ

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- ✓ Bilgi merkezli değerlendirme yöntemidir.



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GÜLDÜNYA



## Simge ve Kısaltmalar

$n$ : olay sayısı

$n$ : bağımlı olay sayısı

$m$ : bağımsız olay sayısı

$l$ : bağımsız durum sayısı

$L$ : simetrinin bağımsız durum sayısı

$ll$ : simetrinin bağımlı durumlarından önce bulunan bağımsız durum sayısı

$L$ : simetrinin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

$lk$ : simetrinin 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

$l$ : simetrinin ilk bağımlı durumunun, bağımlı olasılık farklı dizilimsiz dağılımın son olayı için sırası. Simetrinin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

$l_i$ : simetrinin son bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrinin birinci bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

$l_s$ : simetrinin ilk bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz

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

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

$l_{sa}$ : simetrinin aranacağı bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrinin aranacağı bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

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

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

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

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

$_{fz}S_{j_i}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}S_{j_{i,0}}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}S_{j_{i,D}}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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

$_{fz}^0S_{j_{i,0}}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}^0S_{j_{i,D}}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık



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

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

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

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

$f_{Z,0} S_{j_s,j_i,0}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı

durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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

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durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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$fzS_{js,jik,j^{sa},j_i,D}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumda bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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$fz, 0 \Rightarrow_{j_s, j_{ik}, j_i, D}^{DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı

durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan simetrik olasılık

${}_fz \Rightarrow_{j_s, j_{ik}, j_i}^{0DST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan simetrik olasılık

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bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık

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

bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık

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herhangi iki ve son durumuna bağlı tek kalan simetrik olasılık

$fz,0 \overset{DST}{\Rightarrow} j_s, \Rightarrow j_{ik,j^{sa},j_i,0}$ : 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 tek kalan simetrik olasılık

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$0 \overset{DST}{fz \Rightarrow} j_s, \Rightarrow j_{ik,j^{sa},j_i,D}$ : 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 tek kalan simetrik olasılık

$fz \overset{DST}{S}_{j_i}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$fz \overset{DST}{S}_{j_i,0}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$fz \overset{DST}{S}_{j_i,D}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$0 \overset{DST}{fz \Rightarrow} j_i$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$0 \overset{DST}{fz \Rightarrow} j_i,0$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$0 \overset{DST}{fz \Rightarrow} j_i,D$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık



$f_z S_{j_s^{sa}}^{DSST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı tek kalan düzgün simetrik olasılık

$f_z S_{j_s^{sa},0}^{DSST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı tek kalan düzgün simetrik olasılık

$f_z S_{j_s^{sa},D}^{DSST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı tek kalan düzgün simetrik olasılık

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

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$f_z S_{j_s,j_s^{sa},0}^{DSST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu



bağımsız simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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$fzS_{j_{ik},j^{sa},D}^{DSST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu

bağımlı simetrisinin herhangi iki durumuna bağlı tek kalan düzgün simetrik olasılık

$fzS_{j_s,j_{ik},j^{sa}}^{DSST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$f_{z,0}S_{j_s,j_{ik},j^{sa},j_i,0}^{DSST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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$f_zS_{j_i,0}^{DOST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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$f_zS_{j^{sa}}^{DOST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu



simetrisinin durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

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bağlı tek kalan düzgün olmayan simetrik olasılık

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durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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${}_0fzS_{j_s,j_{ik},j^{sa},j_i,0}^{DOST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

${}_0fzS_{j_s,j_{ik},j^{sa},j_i,D}^{DOST}$ : 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 tek kalan düzgün olmayan simetrik olasılık

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$fzS_{j_s,j_{ik},j^{sa},0}^{DOST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan düzgün olmayan simetrik olasılık

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

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$fzS_{\Rightarrow j_s, j_{ik}, j_i}^{DOST}$ : 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 tek kalan düzgün olmayan simetrik olasılık

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$fz \Rightarrow_{j_s, j_{ik}, j^{sa}, j_i, D} S^{DOST}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

$fz, 0 \Rightarrow_{j_s, j_{ik}, j^{sa}, j_i} S^{DOST}$ : 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 tek kalan düzgün olmayan simetrik olasılık

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$fz,0 \overset{DOST}{\Rightarrow}_{j_s, \Rightarrow j_{ik}, j^{sa}, j_i, 0}$ : 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 tek kalan düzgün olmayan simetrik olasılık

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# 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 haricinde dağılımın herhangi bir durumuyla başlayan dağılımlar (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan bir durumla başlayan dağılımlar) ve dağılımın ilk durumu haricinde ilk 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 olasılara (bağımsız olay sayısı) dağılımla bağımlı ve bir bağımsız olasılık dağılımlar elde edilir. Bağımlı dağılım farklı dizilimsiz dağılımlarda incelendiğinde, bu dağılımlara bağımlı ve bir bağımsız olasılık 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 sırasına göre 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 Cn ile 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/bağımsız-bağımsız” kelimeleri getirilerek, simetrinin bağımlı durumlarının 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-büyüğe 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, büyüğe-küçüğe sıralanan dağılımlar için de simetrik olasılık eşitlikleri elde edilecektir.

Bu şekilde bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlamasının başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılığın eşitlikleri verilmektedir.



**SİMETRİDEN SEÇİLEN İKİ DURUMA GÖRE TEK KALAN DÜZGÜN OLMAYAN SİMETRİK OLASILIK**

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_{ZS}^{D0} S_{j_s, j_{sa}}^{D0} = \left( \sum_{k=l}^n \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_s=j_{sa}-j_{sa}^{ik}+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^n \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j^{sa}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right)$$



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



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

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

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

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)} \cdot \frac{(n + j_{sa} - j_{sa} - s)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

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

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

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge s = s$$

$$f_Z^{S_{j_s, j_{sa}^{DOST}}} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$

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

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$



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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

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

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

$$\sum_{k=l}^{(\quad)} \sum_{(j_s = \quad - j_{sa} + 1)}^{(\quad)} \sum_{(l_s = \quad - j_{sa} - D - s)}^{(\quad)} \sum_{(n_i = j_s + 1)}^{(n_i = j_s + 1)} \sum_{n_i = \mathbf{n} + 1}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$2 \leq l \leq l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j_s - j_{sa} \wedge$$

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

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

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

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



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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_{ik}-l-j_{sa}^{ik}+2)} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+n-D-j_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \Big) + \\ \left( \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{sa}+n-D-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \Big)$$



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



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$

$$fz_{j_s, j}^{\pi} = \left( \sum_{k=l}^{j_s} \sum_{(j_s - j_{sa} + 1)}^{(j_s - j_{sa} + 1)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right)$$

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

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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



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



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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq s \leq D - n + 1$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge s = j_{sa}^i \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}
\end{aligned}$$



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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

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

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



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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s = l_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1)}^{(l_s - l + 1)} \sum_{j_s = l_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1} j_s^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \right. \\ \left. \sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ \left( \sum_{k=l} \sum_{(j_s = l_s + \mathbf{n} - D)}^{(l_{ik} + \mathbf{n} - D - j_{sa}^{ik})} \sum_{j_{sa} = l_{ik} + \mathbf{n} + j_{sa} - D - j_{sa}^{ik}}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \right)$$



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



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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

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

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

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

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

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

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right)$$



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



$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(n + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot$$

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

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l}$$

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



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

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

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

$$D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} + 1 \leq \mathbf{l} \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

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

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

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

$$D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} + 1 \leq \mathbf{l} \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s = \mathbf{l}_s + \mathbf{n} - D)}^{(l_s - l + 1)} \sum_{j^{sa} = \mathbf{l}_{sa} + \mathbf{n} - D}^{l_{sa} - l + 1} \\ &\sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \end{aligned}$$







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

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_{\mathbf{s}, j^{sa}}^{DOST} = \left( \sum_{k=l}^{l_s-1} \sum_{j_s=l_{sa}+n-j_{sa}+1}^{l_s-1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_s-1} \right. \\ \sum_{n_i=n}^n \sum_{n_{is}=n-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\ \sum_{n_i=n}^n \sum_{n_{is}=n-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\$$



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



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

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

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

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}.$$

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} = l_{ik} \wedge l_i - j_{sa} - s > 0 \wedge$$

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

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

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\}$$

$$s \geq 3 \wedge s = l_s \Rightarrow$$

$$fzS_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

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

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

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



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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

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

$$> 3 \wedge s \Rightarrow$$

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



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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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



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

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z \mathcal{S}_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_s+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \sum_{n_i=n}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}^l-j_{sa}-\mathbb{k})}^{(n_{sa}=n_{ik}+j_{sa}^l-j_{sa}-\mathbb{k})} \frac{(n_{is}-j_s+1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-j_s+1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-j_{sa})!} \cdot \frac{(n_{sa}-j_{sa}-n_{ik}+1)!}{(n_{sa}-j_{sa}-n_{ik}+1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}.$$



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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$j_{sa}^{DOST} = \sum_{k=l}^{(l_s - l - j_{sa} + 2)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(l_s - l - j_{sa} + 2)} \sum_{j_{sa} = j_s + j_{sa} - 1}^{(l_s - l - j_{sa} + 2)}$$

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

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$\sum_{k=l}^{(l_{sa} - l - j_{sa} + 2)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(l_{sa} - l - j_{sa} + 2)} \sum_{j_{sa} = j_s + j_{sa} - 1}^{(l_{sa} - l - j_{sa} + 2)}$$

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



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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!}.$$

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

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

$$2 \leq j_s \leq j_{sa}^s - j_{sa} + 1 \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

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

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

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

$$\frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa}^s)!}.$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



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

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

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

$$\sum_{n_{ik}=n_{is}+j_{sa}^s}^{(n_{ik}-l-j_{sa}^{ik}+2)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_i-j_s+1)}$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

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

$$s > n \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

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



$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$\sum_{k=l}^{l_s-l+1} \sum_{l_i+n_{is}=l_{sa}+j_{sa}-1}^{l_{sa}+j_{sa}-1} \sum_{j_s=0}^{n_{is}+j_{sa}-1}$$

$$\sum_{n_i=n+l}^n \sum_{n_{is}=n+l-k-j_s+1}^{(n_{is}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{(n_{ik}+j_{sa}^s-j_{sa}^{ik}-s-l-k-j_{sa}^s)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-k)}^{(n_{sa}-l_{sa}-j_{sa}-k)}$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge D \geq n + 1 \wedge$$

$$2 \leq j_s \leq j_s^l - j_{sa} + 1 \wedge$$

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

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

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

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

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

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



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

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

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

$$\sum_{n_i=n+1}^n \sum_{j_s=j^{sa}-j_{sa}+1}^{(j_s+1)}$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s \leq n + j_{sa} - s \wedge$$

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

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

$$j_{sa} \leq j_s - 1 \wedge j_{sa} - j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^i, j_{sa}^l\} \wedge$$

$$j_s \geq 3 \wedge j_{sa} - s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l-s+1}$$



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



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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

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

$$\geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned}
f_{zS_{j_s, j^{sa}}}^{DOST} &= \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{(j_s=l_s+n-D)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}
\end{aligned}$$



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



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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!}.$$

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

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

$$2 \leq j_s \leq j_{sa}^s - j_{sa} + 1 \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$fz_{j_s}^S = \sum_{k=l}^{(l_{ik}+\mathbf{n}-D-j_{sa}^{ik})} \sum_{(j_s=l_s+\mathbf{n}-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}$$

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

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

$$\frac{(n_{is} - n_{sa} - 1)!}{(j_{sa}^s - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa}^s)!}.$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



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

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

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

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}-j_s)}^{(n_i-j_s+1)}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

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

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

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

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



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

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

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

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



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



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

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

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

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



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

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

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

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

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(D - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

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

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

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

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



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

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

$$j_s \geq 3 \wedge j_{sa}^i = s \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



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



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{(\quad)} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-n-l_i-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}.$$

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

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

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

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

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

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

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

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

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

$$D \geq n < n \wedge l_s = \mathbb{k} - j_{sa}^s \wedge$$

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

$$s: \{j_{sa}^s, j_{sa}^{ik}, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}^{l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}$$



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



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

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

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

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n + 1)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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



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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} \mathbf{S}_{j_s, j_{sa}}^{DOST} &= \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=\mathbf{l}_s+n-D)}^{\mathbf{l}_s+j_{sa}-l} \sum_{j_{sa}=\mathbf{l}_{sa}+n-D}^{\mathbf{l}_s+j_{sa}-l} \\ &\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(\mathbf{l}_s - l - 1)!}{(\mathbf{l}_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \end{aligned}$$



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



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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

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

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

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



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

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n}^{+j_s-j_{sa}} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + j_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

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

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

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

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}}^{(l_s-l+1)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(l_s-l+1)}$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

$$D > \mathbf{n} < n \wedge \mathbf{l} \neq l \wedge \mathbf{l} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$1 \leq l_i \leq j^{sa} - j_{sa}$$

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right)$$



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



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

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

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

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



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

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

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=j_s+j_{sa}}^{j_{sa}-1} \sum_{n_i=n}^{(n_i-j_s+1)} \sum_{(n_{is}=n-j_s+1)}^{n_{is}+j_s-j_{sa}} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \sum_{n_i=n}^{(n_i-j_s+1)} \sum_{(n_{is}=n-j_s+1)}^{n_{is}+j_s-j_{sa}} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \right)$$



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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$\sum_{k=l}^{(l_{ik} - l_s - j_{sa} + 1)} \sum_{j_s=0}^{(j_s - l_s - l + 1)} \sum_{j^{sa}=j_s + j_{sa}}^{(j^{sa} - j_s - j_{sa} - 1)}$$

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

$$\sum_{n_{ik}=n_{is} + j_{sa}^{ls} - j_{sa}^{ls}}^{(n_{sa} - n_{ik} + j_{sa}^{lk} - j_{sa} - \mathbb{k})} \sum_{(n_{sa} = n_{ik} + j_{sa}^{lk} - j_{sa} - \mathbb{k})}^{(n_{sa} - n_{ik} + j_{sa}^{lk} - j_{sa} - \mathbb{k})}$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D - \mathbf{n} + j_{sa} - j^{sa} - l_{sa} \wedge$$

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

$$j_s + j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

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

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

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

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



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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s=j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_s - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{(j^{sa}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \left. \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right)$$



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

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

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

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s-j^{sa}+1)}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(j_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

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

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

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

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



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l_i - 1 \wedge$$

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

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

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

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

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

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_{n, j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}$$



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

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

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

$$\sum_{n_{ik}=n_{is}+j_{sa}^s}^{(n_{ik}-l-j_{sa}^{ik}+2)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{sa}-l-j_{sa}^{sa}+2)}$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \wedge D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_s \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa}$$

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

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

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

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

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

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

$$s \leq n \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



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



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

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

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

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



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

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

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

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

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s = j_{sa} - j_{sa} + 1)}^{(l_s)} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_s} \sum_{n_i = n}^{(n_i - j_s + 1)} \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=l} \sum_{(j_s = 2)}^{(j_{sa} - j_{sa})} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_s + j_{sa} - l} \sum_{n_i = n}^n \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$



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



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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!}.$$

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

$$D \geq \mathbf{n} < \mathbf{n} \wedge l \neq i, l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq i, l - 1 \wedge$$

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

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

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

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

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

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

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\}$$

$$s: 3 \wedge s = 1 \wedge$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}$$

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

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

$$\frac{(n_{is} - n_{sa} - 1)!}{(j_{sa}^s - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa}^s)!}.$$

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



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

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

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

$$\sum_{n_i=n}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(l_s-l+1)}$$

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

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - l_k - j_s^{sa} - s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - l_k - j_s^{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

$$D > n < n \wedge l \neq l_i \wedge l_i \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - 1 \wedge$$

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

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

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

$$D + j_{sa}^{ik} - 1 < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

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

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

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$



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



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



$$\left( (D \geq n < n \wedge l \neq i, l \wedge l_s \leq D - n + 1 \wedge \right.$$

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

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

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

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

$$(D \geq n < n \wedge l \neq i, l \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

$$(D \geq n < n \wedge l \neq i, l \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

$$(D \geq n < n \wedge l \neq i, l \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=j_{sa}+1}$$



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



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

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

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

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n + 1)!}{(D + j^{sa} + s - n - j_{sa} - j_{sa}^s - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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



$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

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

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

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

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

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{L, \mathbf{s}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\ &\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{n_i-j_s+1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \end{aligned}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1}$$



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

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

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

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

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

$$\left( (D \geq \mathbf{n} < n \wedge l \neq_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

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

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

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

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

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

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

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

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n}) \vee$$

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

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

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

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

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

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

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$



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

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \left( \sum_{k=l}^{(j_s)} \sum_{(j_s=j_{sa}^{sa}+1)}^{(j_s-j_{sa}-1)} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}-j_s} \right. \\ & \sum_{n_i=n}^{(n_i-j_s+1)} \sum_{(n_{is}=n-j_s+1)}^{(n_{is}+j_s-j_{sa})} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}-j_s+1} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{sa} - n_{is} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \right) + \\ & \left( \sum_{k=l}^{(j_{sa}-j_{sa})} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j_{sa}=j_{sa}+2}^{l_s+j_{sa}-l} \right. \\ & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \\ & \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right) \end{aligned}$$



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



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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!}.$$

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

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \frac{\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \right)$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j=2)}^{j^{sa}-j_{sa}-1}$$

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

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

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

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

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

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

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

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

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



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

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

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

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

$$s \in \{j_{sa}^s, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \left. \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \right).$$



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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$\left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j=2)}^{+j_{sa}-l} \sum_{j^{sa}=n-D}^{+n-D}$$

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

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1}$$

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

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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



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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$\sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1, \dots, j^{sa}=l_i+n+j_{sa}-1)}^{( )} \sum_{(l_s+l_{sa}=n+l_{sa}+1, \dots, l_s+l_{sa}=n+l_{sa}+1)}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k, \dots, n_{is}=n+l_k)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k, \dots, n_{is}=n+l_k)}^{(n_i-j_s+1)}$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l_i l - 1 \wedge$$

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l_i l - 1 \wedge$$



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

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

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

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

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

$$D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} + 1 \leq \mathbf{l} \leq \mathbf{l} - 1 \wedge$$

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

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

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

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

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

$$D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} + 1 \leq \mathbf{l} \leq \mathbf{l} - 1 \wedge$$

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

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

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

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D \geq \mathbf{n} < n) = \mathbb{K} = \emptyset$$

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

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

$$s \geq 3 \wedge \mathbf{s} = \emptyset$$

$$fzS_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$

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

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



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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

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

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

$$\sum_{k=l_i}^{(l_s-l+1)} \sum_{l_i+n-j^{sa}+1}^{(l_i+n-j^{sa})} \sum_{j_s+l_{sa}-1}^{(j_s+l_{sa})}$$

$$\sum_{n_i=n+l_i}^n \sum_{(n_i=n+l_i-j_s+1)}^{(n_i=n+l_i+1)}$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$2 \leq l \leq D - l_s + j_{sa} - n - l_{sa} \wedge$$

$$j_s \leq j_s \leq j_s - j_{sa} \wedge$$

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$



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

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

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

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

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

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

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

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

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

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

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

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

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

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

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

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

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

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} \neq \mathbf{s} \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s = \mathbf{l}_{sa} + \mathbf{n} - D - j_{sa} + 1)}^{(\mathbf{l}_s - \mathbf{l} + 1)} \sum_{j_{sa} = j_s + j_{sa} - 1} \right. \\ \left. \sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \right)$$



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



$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_s + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s + 1)!} \cdot$$

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

$$\sum_{k=0}^{l_s - l + 1} \sum_{\substack{l_i = l_i + \mathbf{n} - l_{sa} + 1 \\ j^{sa} = j_s + j_{sa} - 1}} \sum_{\substack{n_i = \mathbf{n} + \mathbb{k} \\ n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1}} \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik}} \sum_{\substack{n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k} \\ n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k}}}^{(n_{sa} - j_{sa} + 1)}$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

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

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

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

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



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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-l+1} \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}+j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}+j_s+1}^{n_{is}-j_{sa}} \frac{(n_i-j_s+1)!}{(n_i-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_{sa}-1)! \cdot (n_{sa}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} - \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-l+1} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K})}^{( )} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{K}-j_{sa}^s)!}{(n_{ik}+j_{sa}+j_{sa}^{ik}-\mathbf{n}-j_{sa}-\mathbb{K}-j_{sa}^s)! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}.$$



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

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

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

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

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

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



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

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

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - i = l_{ik} \wedge l_i + j_{sa} - s > 0 \wedge$$

$$l_i \leq D + s - n \wedge$$

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

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

$$s \in \{j_{sa}^s, j_{sa}, \dots, j_{sa}^{ik}\} \wedge$$

$$s \geq 0 \wedge s = s \Rightarrow$$

$$\begin{aligned}
f_{zS}^{DOST} = & \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!}
\end{aligned}$$



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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

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

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

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

$$D - s - 1 \leq l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$



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

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

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



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

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

$$\mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(l_s - l - j_{sa} + 2)} \sum_{(j_s=2)}^{(j_s-1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(j_s-1)} \sum_{n_i=n}^{(n_i-n_{is}-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa}-n_{sa}-1)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \end{aligned}$$

$$\begin{aligned} & \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)}^{(j_s-1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(j_s-1)} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{()} \end{aligned}$$



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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

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

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

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

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$fz_{j^{sa}}^{OST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1} \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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



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

$$\begin{aligned}
& D \geq n < n \wedge l \neq l \wedge l_s \leq D-n+1 \wedge \\
& 1 \leq j_s \leq j^{sa}-j_{sa}+1 \wedge \\
& j_s+j_{sa}-1 \leq j^{sa} \leq n+j_{sa}-s \wedge \\
& l_{ik}-j_{sa}^{ik}+1 = l_{ik} \wedge l_{sa}+j_{sa}^{ik}-j_{sa}^{ik} > l_{ik} \wedge l_{sa}+j_{sa}-s = l_{sa} \wedge \\
& D+j_{sa}-n < l_{sa} \leq D+l_{ik}+j_{sa}-j_{sa}^{ik} \wedge \\
& D \geq n < n \wedge l_k = 0 \wedge \\
& j_{sa}^{i_{sa}}-1 \wedge j_{sa}^s \leq j_{sa}-1 \wedge \\
& \{j_{sa}^s, j_{sa}^{i_{sa}}, \dots, j_{sa}^i\} \wedge \\
& s \geq 2 \wedge s = s
\end{aligned}$$

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



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



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

$$D \geq \mathbf{n} < n \wedge l \neq i, l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

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

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

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D} \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$



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



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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

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

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

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

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

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

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

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



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



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

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

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

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

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

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_{z_{j_{sa}}}^{POST} = \sum_{k=l}^{a-j_{sa}+1} \sum_{(j_s=)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}} \sum_{n_i=n}^{n_i-j_s+1} \sum_{(n_{is}=n-j_s+1)}^{n_{is}+j_s-j^{sa}} \sum_{n_{sa}=n-j^{sa}+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$



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

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



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

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

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

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

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

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

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_{\mathbf{z}} S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{\mathbf{l}_{ik} + \mathbf{n} - D - j_{sa}^{ik}} \sum_{j_s = \mathbf{l}_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1}^{\mathbf{l}_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{n_i = \mathbf{n}}^{\mathbf{n}} \sum_{n_{is} = \mathbf{n} - j_s + 1}^{j_s + 1} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa}} \\ & \frac{(n_i - n_{is} - 1)!}{(i - l - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_s - l - 1)!}{(\mathbf{l}_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{\mathbf{l}_s - l + 1} \sum_{j_s = \mathbf{l}_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1}^{\mathbf{l}_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{j^{sa} = j_s + j_{sa} - 1}^{\mathbf{l}_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \\ & \sum_{n_i = \mathbf{n}}^{\mathbf{n}} \sum_{n_{is} = \mathbf{n} - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa}} \end{aligned}$$



$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_s + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - l_s + 1)!} \cdot$$

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

$$\sum_{k=l}^{j_s - l_s + n - D - j_s + 1} \sum_{l_s = j_s + j_{sa} - 1}^{j_s - l_s + n - D - j_s + 1} j^{sa} = j_s + j_{sa} - 1$$

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$(D \geq n - l_i \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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



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

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

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

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

$$\mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} fz_{j_s, j_s}^{SD} &= \sum_{k=l}^{(j_s - l - 1)} \sum_{(j_s - l - 1)}^{(j_s - l - 1)} \sum_{j_{sa}^{sa} = j_{sa} + 1}^{(j_s - l - 1)} \frac{(n_i - j_s - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\quad \frac{(\mathbf{l}_s - \mathbf{l} - 1)!}{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \\ &\quad \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\quad \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ &\quad \sum_{k=l}^{(\mathbf{l}_{ik} - \mathbf{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = 2)}^{(\mathbf{l}_{sa} - \mathbf{l} + 1)} \sum_{j_{sa}^{sa} = \mathbf{l}_{ik} + j_{sa} - \mathbf{l} - j_{sa}^{ik} + 2}^{(\mathbf{l}_{sa} - \mathbf{l} + 1)} \end{aligned}$$



$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot$$

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

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

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

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

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



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

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

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

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

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

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

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

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

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



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

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1)$$

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

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

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

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

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

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

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

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

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

$$D \geq n \wedge l = l_i \wedge l_s = 0 \wedge$$

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

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

$$s \geq 3 \wedge s = s \Rightarrow$$



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



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

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

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

$$\sum_{n_{ik}=n_{is}+j_{sa}^s}^{(n_{ik}-l-j_{sa}^{ik}+2)} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_k)}^{(n_{ik}-l-j_{sa}^{ik}+2)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s - l - j_{sa}^s)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa} - l_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

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

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

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

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

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

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

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

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



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

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(j_{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_s-l} \sum_{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-s}^{\mathbf{l}_s+j_s-l} \\ & \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s)}^{(n_i-j_s)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \\ & \frac{(j_s-2)! \cdot (n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{sa}-n_{sa}-1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \\ & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ & \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_s+l_{sa}-j_{sa}-l_s)! \cdot (j_{sa}-j_s-j_{sa}+1)!} \cdot \\ & \frac{(D+j_{sa}-\mathbf{l}_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-\mathbf{l}_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j_{sa}=\mathbf{l}_s+j_{sa}-l+1}^{\mathbf{l}_i+j_{sa}-l-s+1} \\ & \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \\ & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \end{aligned}$$



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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

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

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

$$\sum_{k=l}^{l_s} \sum_{i=1}^{j_s - l_s + l_s + j_{sa} - l} \sum_{j=1}^{l_s + j_{sa} - l} \sum_{s=1}^{j_{sa} - D - s} \sum_{n_i=n+1}^n \sum_{n_{is}=n+l_s-j_s+1}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{(n_{ik}+j_{sa}^s-j_{sa}^{ik}-s-l-k-j_{sa}^s)!} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{(n_{sa}-l_k-j_{sa}^s)!} \cdot$$

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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

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

$$1 \leq j_s \leq j_s - j_{sa} + 1 \wedge$$

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

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



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

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

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

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

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

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

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

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

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

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

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

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

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$S_{j_s, j_{sa}}^{DOSI} = \sum_{k=l}^{j^{sa}-j_{sa}+1} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_s - l - 1)!}{(\mathbf{l}_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$



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



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

$$\left( (D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge \right.$$

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D \geq n < n \wedge l = l \wedge l_s = 0 \wedge$$

$$j_{sa} \leq j^{sa} - 1 \wedge j_{sa}^s \leq j^{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^s, j_{sa}^i\} \wedge$$

$$s \geq j_{sa}^s = s \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{n_{is}+j_s-j^{sa}} \sum_{n_i=n}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1} \\
& \sum_{n_i=0}^n \sum_{n_{is}=n-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1}
\end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^s + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^s - s)!}.$$

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - j_{sa})! \cdot (\mathbf{n} - j_{sa} - j_{sa}^s - s)!}.$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - j_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - j_s - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j^{sa} - \mathbf{n} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-$$

$$\sum_{n_i=n}^n \sum_{n_i=n}^{(j_s+1)} \sum_{n_i=n}^{(j_s+1)}$$

$$\sum_{n_{ik}=l}^{(l_s-l+1)} \sum_{n_{ik}=l}^{(l_s-l+1)} \sum_{n_{ik}=l}^{(l_s-l+1)}$$

$$\frac{(n_{ik} + j_{sa} - s - l_{sa} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D > n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l = {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{POST} &= \left( \sum_{k=1} \sum_{i=1}^{(\cdot)} \sum_{j_{sa}=j_{sa}} \right. \\ &\quad \sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j_{sa}+1)}^{(n_i-j_{sa}+1)} \\ &\quad \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot \\ &\quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} \right) + \\ &\quad \left( \sum_{k=1} \sum_{i=1}^{(\cdot)} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-i^{l+1}} \right) \end{aligned}$$



$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!}$$

$$\frac{(l_{sa} - l_s - j_{sa} - 1)!}{(l_{sa} - j^{sa} - l_s + 1)! \cdot (j^{sa} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_s - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} - j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{\mathbb{K}} \sum_{l \in \mathbb{L}} \sum_{a=j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^{n_i} \sum_{(n_{sa}=\mathbf{n}+j_{sa}-j^{sa}-\mathbb{K}+1)}^{(n_i-j_{sa}-j^{sa}-\mathbb{K}+1)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K}}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - \mathbf{n} + j_{sa} - \mathbb{K} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} + j_{sa} - \mathbb{K} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_{sa} \leq j^{sa} - j_{sa} - 1 \wedge$$

$$j_{sa} + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_i \wedge l_i + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$



$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=_i l}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - s)!} \cdot$$

$$\sum_{k=_i l}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_{sa}=\mathbf{n}+j_{sa}-j^{sa}+1}^{(\quad)} \sum_{(n_{ik}=\mathbf{n}+j_{sa}-j^{sa}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} + j_{sa}^{ik} - \mathbf{n} - 1 - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l = \_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l = \_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$



$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$



$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=1}^{\mathbf{l}} \sum_{(j_s=1)}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{l_{sa}-\mathbf{l}+1}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa})}^{(n_i-j^{sa}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_i - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_i - j^{sa})!} \cdot$$

$$\frac{(l_{sa} - \mathbf{l} - j_{sa} + 1)!}{(l_{sa} - j_{sa} - \mathbf{l} + 1)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{\mathbf{l}} \sum_{(j_s=1)}^{(\quad)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i=n_i+j_{sa}-j^{sa}-j_{sa}^{ik}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(n_i + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_i + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{l} + 1 \wedge$$

$$2 \leq \mathbf{l} \wedge D + l_s - \mathbf{l} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_{sa} + j_{sa}^a \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right) + \\ \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ \left. \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \right)$$



$$\begin{aligned}
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}+j_s-j_{sa}-j^{sa})!}^{n_{is}-j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_{is} - n_{is} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{is} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_s^{sa}}^{DO} = \sum_{k=l}^{l-j_{sa}^{ik}+2} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}-1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + n - n - l_i - j_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_s \wedge$$

$$j_s + j_{sa} \leq j_s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - l_{sa} + j_{sa} - j_s - l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = 1 + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \wedge \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - l_{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa}+n_{sa}-j_{sa})} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(n + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s+l-j_{sa}+2)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s = i_{sa} - j_{sa} + 1)}^{(l_s)} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_s} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=l}^{(j^{sa} - j_{sa})} \sum_{(j_s = l_s + n - D)}^{l_s + j_{sa} - l} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_s + j_{sa} - l} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$



$$\begin{aligned}
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{l_s-l+1} \sum_{i_s=n+l_s-n_{sa}-j^{sa}-k}^{n_{sa}-l+1} \frac{(l_s-l+1-k)! \cdot (l_{ik}+j_{sa}-l-j_{sa}^{ik})!}{(j_s-l+1-k)! \cdot (n_{is}+j_s-j^{sa}-k)!} \cdot \\
& \sum_{n_i=\mathbf{n}+k}^{n_i-j_s+1} \sum_{n_{is}=\mathbf{n}+k-j_s+1}^{n_{sa}=\mathbf{n}-j^{sa}+1} \frac{(n_i - n_{is} - 1)!}{(j_s - l + 1 - k)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+k}^n \sum_{(n_{is}=\mathbf{n}+k-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^s+j_{sa}^{ik}-\mathbf{n}-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (\mathbf{n}+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}^s-s)!}.$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^s - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - \mathbf{n} \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbf{n} \wedge$$

$$\mathbb{k}: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_s+\mathbf{n}-D)}^{(l_s-l+1)} \sum_{j_{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}^s+1}^{n_{is}+j_s-j_{sa}^s-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa}^s)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa}^s)!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l} \sum_{\substack{(\quad) \\ (j_s=j^{sa}-j_{sa}+1)}}^{l_s+j_{sa}-l} j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s$$

$$\sum_{n_i=\mathbf{n}}^n (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}} (n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})$$

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_s^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}{(l_s - l - 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + \mathbf{n} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_s - \mathbf{n} - 1 \wedge$$

$$2 \leq j_s - j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} < \mathbf{n} + j_s - s \wedge$$

$$l_i - j_{sa} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{lk} + 1)}^{(l_s - l + 1)} \sum_{j^{sa} = j_s + j_{sa} - 1} \right. \\
& \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} - l_k}^{n_{is} + j_s - j^{sa} - l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l} \sum_{(j_s = l_s + n - D)}^{(l_{ik} + n - D - j_{sa}^{lk} + 1)} \sum_{j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{lk}}^{l_{ik} + j_{sa} - l - j_{sa}^{lk} + 1} \right. \\
& \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{is} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - n_{is} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_Z: Z = \dots \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\ \left. \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \right. \\ \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right).$$



$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\left( \sum_{k=l}^{(j^{sa} - l_{sa} - l)} \sum_{(j_s = l_s + n - D)}^{l_s + n - l} \sum_{j^{sa} = l_{sa} + n}^{l_s + n - l} \right)$$

$$\sum_{n_i = n + \mathbb{K}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{K} - j_s + 1)}^{n_{is} + j_s - j^{sa} - \mathbb{K}} \sum_{n_{sa} = n - j^{sa} + 1}^{j^{sa} + 1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{l_{sa} - l + 1} \sum_{j^{sa} = l_{sa} + n}^{l_{sa} - l + 1}$$

$$\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{K}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - 1)!} \cdot$$

$$\sum_{k=l}^{( )} \sum_{j_s=j_s+l}^{( )} \sum_{l_s+l_{sa}-j_{sa}-D-s}^{l_s+j_{sa}-l} \sum_{n_i=n+l}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l-k-j_s+1)}^{(n_{is}=n+l-k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik} \mid (n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n + 1) \wedge (n_{is} = n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_s - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n + 1 \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} + 1 \leq \mathbf{l} \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_k)}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_k - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \\
& \frac{(l_s - l)}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge \\
& j_s + j_{sa} \leq j_s \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee \\
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge \\
& j_s + j_{sa} \leq j_s \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee
\end{aligned}$$

$$\begin{aligned}
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge
\end{aligned}$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$f_Z \mathcal{S}_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s - l - 1)} \sum_{(j_s = l_s + n - D - j_{sa} + k)}^{(l_s - l - 1)} \sum_{j_{sa} = j_s + j_{sa} - 1}^{(l_s - l - 1)} \right. \\ \left. \sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_i - j_s - j_{sa} - \mathbb{K}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right) + \\ \left( \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)}^{(l_{sa} + n - D - j_{sa})} \sum_{j_{sa} = l_{sa} + n - D}^{l_{sa} - l + 1} \right. \\ \left. \sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa} - \mathbb{K}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \right.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l)} \sum_{j_s=l_i+n-D-s+1}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \frac{(n_{is} - n_{sa} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^s+j_{sa}^{ik}-\mathbf{n}-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (\mathbf{n}+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}^s-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^s - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-j_{sa}^{ik}+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)} \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)} \\
& \sum_{n_{ik}=n}^{( )} \sum_{(n_{sa}=n_i+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa} - s - l_{sa} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} - 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} + 1 = l_s \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$\geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$> 3 \wedge s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (j^{sa} - j_s + 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_s - 1)!}{(l_s + j^{sa} - \mathbf{n} - 1)! \cdot (n_{is} + j_s - n_{sa} - s)!}.$$

$$\sum_{k=l}^{\binom{D}{j_s}} \sum_{(j_s=j^{sa}+1)}^{(j_s=j^{sa}+1)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{\binom{D}{j_s}}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_s+l}^{l_s+j_{sa}-l} \sum_{j_{sa}=D-1}^{j_{sa}-D-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n+\mathbb{k}-j_s+1}^{n_{is}+j_{sa}-\mathbb{k}} \frac{(n_i-j_s+1)!}{(n_i-j_s+1)!} \cdot \frac{(n_{is}+j_{sa}-\mathbb{k})!}{(j_{sa}-j_s-1)! \cdot (n_{sa}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+l_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}.$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z^{POST} = & \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=l_{sa}-D-j_{sa}+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_{sa}-l-j_{sa}+2)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\ & \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_{sa}-l-j_{sa}+2)} \end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^s + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j_{sa}^s - s)!} \cdot \frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa}^s + s - n - j_{sa} - j_{sa}^s)! \cdot (n - j_{sa} - j_{sa}^s - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} = l_{ik} \wedge l_{ik} - j_{sa} - s > 0 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k}_z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{j_s=j_{sa}-1} \sum_{j^{sa}=j_{sa}-1}^{j^{sa}=j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+l_{ik}-j_{sa}^s}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{n_{is}=n}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_s}^{n_{ik}=n_{is}+j_{sa}^s-j_s} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - l_{sa} - \mathbb{k} - j_s^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - l_{sa} - \mathbb{k} - j_s^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D > \mathbf{n} < n \wedge \mathbf{n} > D - l_i + 1 \wedge$$

$$2 \leq i \leq j^{sa} - j_{sa} - 1 \wedge$$

$$i + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \leq l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - j_{sa} - l_s - s)!}{(D + j^{sa} - n - l_s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l+1)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(j_{sa}-j_{sa}+1)} \sum_{(j_s=\mathbf{l}_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa}+1)} \frac{\mathbf{l}_{ik}+j_{sa}-j_{sa}^{ik}+1}{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-s} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ & \frac{(j_s-2)! \cdot (n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_i-n_{sa}-1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \\ & \frac{(\mathbf{l}_s-\mathbf{l}-1)!}{(\mathbf{l}_s-j_s-\mathbf{l}+1)! \cdot (j_s-2)!} \cdot \\ & \frac{(\mathbf{l}_{sa}-\mathbf{l}_s-j_{sa}+1)!}{(j_s+\mathbf{l}_{sa}-j_{sa}-\mathbf{l}_s)! \cdot (j_{sa}-j_s-j_{sa}+1)!} \cdot \\ & \frac{(D+j_{sa}-\mathbf{l}_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-\mathbf{l}_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} + \\ & \sum_{k=l}^{(\mathbf{l}_{ik}-\mathbf{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\mathbf{l}_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(\mathbf{l}_{ik}-\mathbf{l}-j_{sa}^{ik}+2)} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-\mathbf{l}-j_{sa}^{ik}+2}^{\mathbf{l}_i+j_{sa}-\mathbf{l}-s+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \end{aligned}$$



$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(n_{is} - n_{sa} - 1)} \sum_{j_s = j_s^{sa} + 1}^{(n_{is} - n_{sa} - 1)} \sum_{l_s = l_s^{sa} - D - s}^{(n_{is} - n_{sa} - 1)} \sum_{n_i = n + 1}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_{is} - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{sa} - j_{sa}^{ik} \mid (n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{(n_{is} - n_{sa} - 1)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s = D \wedge n + 1 \wedge$$

$$2 \leq j_s \leq j_s^i - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - s \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_i+n-D-s++1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_i+j_{sa}-l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-j_s+1)}^{j^{sa}=j_{sa}-1}$$

$$\sum_{n_i=n+1}^n \sum_{n_{is}=n+k-j_s+1}^{j^{sa}-1}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_s}^{j_{sa}^s-j_s} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-k}^{j_{sa}^{ik}-j_{sa}-k}$$

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - k - j_s^s)! \cdot (n + j_{sa} - j^{sa} - s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - k - j_s^s)! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D - n < n \wedge n > D - l_i + 1 \wedge$$

$$2 \leq i \leq j^{sa} - j_{sa} - 1 \wedge$$

$$i + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D - n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}, k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+\mathbf{n}-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(j_s + j^{sa} - \mathbf{n} - l_s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+\mathbf{n}-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{is}-1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - \mathbb{k})}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + n - n - l_i - j_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s < n + j_{sa} - s \wedge$$

$$l_s - j_{sa}^{ik} + s = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = 0 \geq 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^s = j_s - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}^{is}, j_{sa}^i\} \wedge$$

$$s > n - l = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1} \\
& \sum_{(j_s=n+l_k-j_s+1)}^n \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{is}+j_s-j^{sa}-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1}
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j_{sa}^{sa} - s)!} \cdot$$

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j_{sa}^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{l_s} + 1 \wedge j_{sa}^s = j_{sa}^{l_s} + 1 \wedge$$

$$s: \{j_s^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^{l_s}\}$$

$$s \geq 3 \wedge s \leq s + \mathbb{k} \wedge$$

$$j_s; z = 1$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa}+1)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{l=\mathbb{k}}^{\mathbf{n}} \sum_{(j_s=\mathbf{n}-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)} \cdot \frac{(n + j_{sa} - j^{sa} - s)!}{(l_s + l - 1)!} \cdot \frac{(l_s + l - 1)!}{(j_s - l + 1) \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq n < n \wedge l_s \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\{j_s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_{lk}+n-D-j_{sa}^{ik}+1)}^{(l_{sa}+n-D-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(j_s + j^{sa} - \mathbf{n} - l_s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{lk}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_k)}^{(n_{is}-j_s+1)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - j_s)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge l = l_k \geq 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(j_{sa} - j_{sa} + 1)} \sum_{(j_s = l_s + n - D)}^{l_s + j_{sa} - l} \sum_{j_{sa} = l_i + j_{sa} - D - s}^{l_s + j_{sa} - l} \\ & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa} - \mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_{sa} - l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{l_i + j_{sa} - l - s + 1} \sum_{j_{sa} = l_s + j_{sa} - l + 1}^{l_i + j_{sa} - l - s + 1} \\ & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa} - \mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s - l - 1)} \sum_{(j_s = j^{sa} - l_{sa} + 1)}^{(j_s - l_{sa} + 1)} \sum_{j^{sa} = l_{sa} + 1}^{(j_s - l_{sa} + 1)}$$

$$\sum_{n_i = n + l_k}^n \sum_{(n_{sa} = n_{ik} + j_{sa} - l_k)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa} - l_k}^{(n_{ik} - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{sa} - l_k)}^{(n_{sa} - j_s + 1)}$$

$$\frac{(n_{ik} + j_{sa} - l_k - s - 1)!}{(n_{ik} + j_{sa} - l_k - s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D - n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D - n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$



$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{j_s=l_i+n-D-s+1}^{n-l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{j^{sa}=l_i+n+j_{sa}-D-s} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=j_s+j_{sa}-1} \end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (l_s - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} - j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{n_{is}=\mathbf{n}+\mathbb{K}-D-j_{sa}+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{K})}^{()}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{K} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{K} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa})) \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{s-1} = 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+j_{sa}-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{sa}}-\mathbb{k}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^{s_{sa}})}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_i - j_{sa}^{s_{sa}} - s)!} \cdot \frac{(n + j_{sa} - j^{sa} - s)!}{(l_s - l)!} \cdot \frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + n - n - l_i - j_{sa}^{s_{sa}})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{j^{sa}-\mathbb{k}} \\
& \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-j_s+1)!} \cdot \\
& \frac{(n_{is}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)}
\end{aligned}$$



$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l \neq l \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOS} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(l)} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) +$$



$$\begin{aligned}
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=j_{sa}+2}^{j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(j_s + j^{sa} - l_s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}-\mathbb{k}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_i-j_s+1)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{(n + j_{sa} - j^{sa} - s)!}{(l_s - l - 1)!} \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D + j_{sa} - n$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_i \geq 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^s = j_s - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq j_s \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \wedge$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left( \frac{(D + j^{sa} - \mathbf{n} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{(j^{sa}=j_s+j_{sa})}^{(n_{is}+j_s-j^{sa}-\mathbb{k})} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_s-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)}{(n_{ik}+j^{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)} \cdot \frac{(n+j_{sa}-j^{sa}-s)!}{(l_s+l+1) \cdot (j_s-2)!} \\
& \frac{(D-n+1)!}{(D+j^{sa}+s-n-j_{sa})!} \cdot \frac{(n+j_{sa}-j^{sa}-s)!}{(D-n+1)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - l_{ik} + 1 = l_s + j_{sa}^{ik} - j_{sa} >$$

$$D + j_{sa} - n \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{l-1} \wedge j_{sa}^s = j_s - 1 \wedge$$

$$s: \{j_s^s, j_{sa}, \dots, j_{sa}^{l-1}\}$$

$$s \geq 3 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}; Z = 1$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right)$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{j^{sa}=l_{sa}+n-D}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \right) \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1}
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot$$

$$\left( \frac{(n + j_{sa} - n - s)!}{(D + j^{sa} - n - s)! \cdot (n - j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=0}^{n_i} \sum_{j_{sa}=1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{j_{sa}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i_l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i_l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \sum_{n_i = \mathbf{n} + \mathbb{k}}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{l_{sa} - l + 1} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{j_{sa} - j_s + \mathbf{n} - D} \frac{(n_i - n_{is} - 1)!}{(i - l - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_s - l - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{j_{sa} = j_s + j_{sa} - 1} \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^s+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-n-l_i-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}.$$

$$D \geq n < n \wedge l \neq i, l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_{sa}^s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > 1 \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = i + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{lk}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \right).$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=\mathbf{n}-D}^{\mathbf{n}-l+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik})} \sum_{j_s=l_i+n-l_{sa}^{ik}+1}^{(n_{i-j_s+1})} \sum_{j_{sa}=j_s+j_{sa}^{ik}}^{(n_{i-j_s+1})}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n_{i-j_s+1})} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_{sa}}^{(n_{i-j_s+1})}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n_{i-j_s+1})} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_{sa}}^{(n_{i-j_s+1})}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - n_{sa} - l_{sa} - j_{sa}^{ik})!}{(n_{ik} + j_{sa}^{ik} - n_{sa} - l_{sa} - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$2 \leq l \leq D - n + j_{sa} - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s=j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_s}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l} \sum_{(j_s=2)}^{(j^{sa}-j_{sa})} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \left. \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right)
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+j_{sa}^{ik}+1}^{n_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s)}^{n_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - j^{sa})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(D + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{sa}^D T_a &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n_{sa}=n_{ik}+j_s-\mathbb{k})} \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{sa} - j_{sa}^s - s)!} \cdot \\
& \frac{(l_s - l)}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq n - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_s \wedge$$

$$1 \leq j_s \leq j^{sa} - j_s \wedge$$

$$j_s + j_{sa} \leq j_s \leq n + j_s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s + l_{sa} + j_{sa} - j_s - l_{ik} \wedge$$

$$D + j_{sa} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n - \mathbb{k} = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} - j_s - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_s, \dots, j_{sa}^i\} \wedge$$

$$s \leq n - s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{l_s + \mathbf{n} - D - j_s} \sum_{(j_s=\mathbf{n}-j_s+1)}^{l_{ik}+j_{sa}-l-j_{sa}^{lk}+1} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{lk}+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_s+j_{sa}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{is} + j_{sa} - n_{sa} - 1)! \cdot (n - j_{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - n_{is} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(n + l_{sa} - j_{sa} - 1)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - n_{sa} - s)!}{(D + j_{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j_{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$



$$\left( (D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s + 1)!}{(l_s + l_{sa} - j^{sa} - l_s + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{sa} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$j_{sa}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$



$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} j^{sa} = j_s + j_{sa} - 1$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{K})}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{K} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{K} - j_{sa}^s) \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \mathbf{n} - 1)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa} - j_{sa}^s - j_{sa}^{ik})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq \mathbf{n} + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{j^{sa}-j_{sa}+1} \sum_{j_s=j^{sa}-j_{sa}+1}^{l_s+j_{sa}-l} \sum_{j_{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \right. \\ \left. \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \right. \\ \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right. \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j_{sa}=j_{sa}+2}^{l_s+j_{sa}-l} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s + l - 1)!}{(l_s + l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n + 1)!}{(D + j^{sa} + s - n - j_{sa} - j_{sa}^s - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq n + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_s \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{l=1}^{(l_s-1)} \sum_{(j_s=2)}^{(l_s-1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-1)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \right)$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (j^{sa} - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(l + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - l_s)! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{l=\mathbf{l}}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 \geq l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{s-1} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_s+j_{sa}-l)} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \right) + \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \mathbf{n} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - \mathbf{n} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - 1 + 1)!}{(l_s - l_s - 1 + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
fz S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
&\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
&\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
&\frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \\
&\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\
&\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{sa}-j_{sa}+1)!}{(j_s+l_{sa}-j_s-n_{sa})! \cdot (j^{sa}-j_s-j_{sa}+1)!} \cdot \\
&\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} \cdot \\
&\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_t+\mathbf{n}-D-s+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
&\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
&\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
&\frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j^{sa}+j_{sa}^{ik}-\mathbf{n}-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_{sa} + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$



$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_{sa}-1}^{j_{sa}=j_{sa}-1} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s}^{n_{is}=n+\mathbb{k}-j_s} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}=n-j_{sa}+1} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\ & \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s}^{n_{is}=n+\mathbb{k}-j_s} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}=n-j_{sa}+1} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \right) \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{j^{sa}-j_s-1} \\
& \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-1)! \cdot (n_{sa}+1)!} \cdot \\
& \frac{(n_{is}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+1-s-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+1-s-n-1)! \cdot (n-j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_s-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_s-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}
\end{aligned}$$



$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$j_z^s S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+j_{sa}+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{is}-j_s+1)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{sa} - j_{sa}^s - s)!} \cdot \frac{(n + j_{sa} - j^{sa} - s)!}{(l_s - l)!} \cdot \frac{(l_s - l + 1)! \cdot (j_s - 2)!}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq n - n + 1,$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} < n + j_{sa} - s,$$

$$l_{sa} - j_{sa}^{ik} + s \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq n + l_{sa} + j_{sa} - j_{sa}^s \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^s, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \wedge \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_s - 1)!}{(l_s + j^{sa} - \mathbf{n} - 1)! \cdot (n_{is} + j_s - n_{sa} - s)!}.$$

$$\sum_{k=l}^{\binom{l_s-l-1}{j_s-j_s-l+1}} \sum_{(j_s=j_s+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{\binom{l_s-l-1}{j_s-j_s-l+1}}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\mathbf{n} > \mathbf{n} < \mathbf{n} \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$



$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa})}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}-j_s+1} \frac{(n_i-j_s+1)!}{(j_s-j_s+1)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} - \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{( )} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j^{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j^{sa}-s)!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s}^{L, \pi} &= \sum_{k=l}^{(\cdot)} \sum_{(j_s=j^{sa}-j_{sa}+1)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1) \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq n + s - n \wedge$$

$$D \geq n < n \wedge l_s \geq 0$$

$$j_{sa} - j_{sa}^i - 1 \wedge j_{sa}^s - j_{sa} - 1$$

$$\{j_{sa}^s, \mathbb{k}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s$$

$$\mathbb{k}_z \cdot z = 1$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)} \sum_{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+\mathbb{k}}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_s - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{n_i = n + \mathbb{k} - j_s + 1}^{(l_{sa} - l - j_s + 2)} \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}}^{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})} \sum_{n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k}}^{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = l \wedge l_{sa} \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_s^l - j_{sa} + 1 \wedge$$

$$j_i + j_{sa} - s \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_i-j_s-j_{sa}-\mathbb{k})} \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-j_{sa})!} \cdot \frac{(n_{sa}-j_{sa}-n+1)! \cdot (n-j_{sa})!}{(n_{sa}-j_{sa}-n+1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_i-j_s-j_{sa}-\mathbb{k})} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}.$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} + s - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j}^{D-s} &= \sum_{i=1}^{(j-s-j_{sa}+1)} \sum_{\substack{l=1 \\ l \neq 2}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{\substack{n_{is}=\mathbf{n}+\mathbb{K}-j_s+1 \\ (n_i-j_s+1)}}^{(n_i-j_s+1)} \sum_{\substack{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{K} \\ (n_{is}+j_s-j^{sa}-\mathbb{K})}}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(\mathbf{l}_s - \mathbf{l} - 1)!}{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_i+j_{sa}-l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} + j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{is} + j^{sa} - n_{sa} + 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(n + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, D}^{D, \mathbf{n}} = & \sum_{k=l}^{\binom{j_s - l + 1}{j_s - 2}} \sum_{\substack{j_{sa} = l_{sa} + n - D \\ j_{sa}^{ik} = l_{sa}^{ik} - l - j_{sa}^{ik} + 1}} \frac{\sum_{n_i = n + \mathbb{k}}^n \sum_{\substack{n_i - j_s + 1 \\ (n_i - n + \mathbb{k} - j_s + 1)}}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}}}{\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{\binom{l_{ik} - l - j_{sa}^{ik} + 2}{j_s - 2}} \sum_{\substack{j_s = 2}}^{l_{sa} - l + 1} \sum_{j^{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 2} \end{aligned}$$



$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+l_k}^{n_{is}+j_s-j^{sa}-l_k}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(n + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(n + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{i=1}^n \sum_{(j_s=j_{sa}+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{(n_i-j_s+1)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(l_i + \mathbf{n} - s - 1)} \sum_{(j_s=2)}^{(l_i + j_{sa} - 1)} \sum_{j_{sa}=l_i + \mathbf{n} + j_{sa} - D - s}^{(l_i + j_{sa} - 1)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{is}+j_s-j_{sa}-\mathbb{k})} \\ & \frac{(n_i - \mathbf{l}_s - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(\mathbf{l}_s - \mathbf{l} - 1)!}{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=l}^{(l_{ik} - \mathbf{l} - j_{sa}^{ik} + 2)} \sum_{(j_s=l_i + \mathbf{n} - D - s + 1)}^{(l_i + j_{sa} - \mathbf{l} - s + 1)} \sum_{j_{sa}=j_s + j_{sa} - 1}^{(l_i + j_{sa} - \mathbf{l} - s + 1)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{is}+j_s-j_{sa}-\mathbb{k})} \end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - l_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_i - j_s - j^{sa} - s)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{n-l-j_{sa}^{ik}+2} \sum_{l_i=n-l-j_{sa}^{ik}+1}^{l_i+l-1} \sum_{j_s=j_s+j_{sa}-1}^{j_s+j_{sa}-1} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-l_k)}^{(n_{sa}-j_{sa}+1)} \cdot \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - j_{sa} - n - j_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n - l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 - j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j_{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+l-1} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_s+l-1} \sum_{n_i=n+l-k-j_s}^n \sum_{n_{is}=n+l-k-j_s}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-l-k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_s+l-1} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_s+l-1} \sum_{n_i=n+l-k}^n \sum_{n_{is}=n+l-k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-l-k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{n_{sa} - j_{sa} + 1} \sum_{j_s = j^{sa} - j_{sa} + 1}^{n_{sa} - j_{sa} + 1} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_s + 1}^{n_{sa} - j_{sa} + 1} \cdot$$

$$\sum_{n_{ik} = n_{is} + j_s^{sa} - j_{sa} + 1}^{n_{sa} - j_{sa} + 1} \sum_{n_{is} = n_{ik} + j_{sa} - j_s + 1}^{n_{sa} - j_{sa} + 1} \cdot$$

$$\sum_{n_{ik} = n_{is} + j_s^{sa} - j_{sa} + 1}^{n_{sa} - j_{sa} + 1} \sum_{n_{is} = n_{ik} + j_{sa} - j_s + 1}^{n_{sa} - j_{sa} + 1} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(n_{ik} + j_{sa} + j_s^{sa} - n - l_{sa} - j_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq l_i \wedge n \wedge l \neq l_i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s^i - j_{sa} + 1$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_s^{sa} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_s^{sa} < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s - l_{sa} - j_s - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_{sa}-1}^{(l_s-l+1)}$$

$$\sum_{n_i=n}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}}^{(n+l_k-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k}^{(n+l_k-j_s+1)}$$

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - l_k - j_s^{s})!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - l_k - j_s^{s})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$(\bullet \geq n < n + 1 \neq l \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n + 1 \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j^{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=j_{sa}^{ik}+1}^{l_{ik}+j^{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{n_{sa} - j_s - l_s + 1} \sum_{j_s = j^{sa} - j_{sa} + 1}^{n_{sa} - j_s - l_s + 1} \sum_{j^{sa} = j_{sa} + 1}^{n_{sa} - j_s - l_s + 1} \sum_{j_{sa} = 1}^{n_{sa} - j_s - l_s + 1}$$

$$\sum_{n_i = n + l_k}^n \sum_{n_{is} = n + l_k}^{n_i - j_s + 1} \sum_{n_{ik} = n_{is} + j_s^{ik}}^{n_{is} - j_s + 1} \sum_{n_{sa} = n_{ik} + j_{sa}^{ik}}^{n_{ik} - j_s + 1}$$

$$\sum_{n_{ik} = n_{is} + j_s^{ik}}^{n_{is} - j_s + 1} \sum_{n_{sa} = n_{ik} + j_{sa}^{ik}}^{n_{ik} - j_s + 1} \sum_{n_{sa} = n_{ik} + j_{sa}^{ik}}^{n_{ik} - j_s + 1} \sum_{n_{sa} = n_{ik} + j_{sa}^{ik}}^{n_{ik} - j_s + 1}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - n_{sa} - j_{sa} - 1)!}{(n_{ik} + j_{sa}^{ik} - n_{sa} - j_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq n + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{j_{sa}} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{(n_i-j_s-j_{sa}-\mathbb{k})} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \\ & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{j_{sa}} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^s + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^s - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa}^s - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{sa}^s - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{sa}^s - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \leq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, j_{sa}, \dots, j_{sa}^s\} \wedge$$

$$s \geq 3 \wedge s = \mathbf{n} + \mathbb{k} \wedge$$

$$z = \mathbf{n} - s$$

$$fz S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{\mathbf{k}=\mathbb{k}-1}^{l_{ik}-1} \sum_{n_i=\mathbf{n}-D-j_{sa}+1}^{(l_{ik}-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_s-j_{sa}-l_k)}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_k - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\frac{(l_s + l - 1)!}{(l_s + l + 1) \cdot (j_s - 2)!}$$

$$\frac{(D - n)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$



$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_s-l} \sum_{j^{sa}=l_i+n+j_{sa}-s}^{l_s+j_s-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-1} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_i-n_{sa}-1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_s+l_{sa}-j^{sa}-l_s)! \cdot (j^{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_i+j_{sa}-l-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot$$



$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{l_s} \sum_{i=1}^{l_s - j_{sa} - l} \sum_{j=1}^{l_s + j_{sa} - l} \sum_{s=1}^{l_{sa} - D - s} \sum_{n_i=n+1}^n \sum_{n_{is}=n+l-j_s+1}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{(n_{ik}+j_{sa}^s-j_{sa}^{ik}-s-l-k-j_{sa}^s)!} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{(n_{sa}-l_{sa}-l-k-j_{sa}^s)!} \cdot$$

$$\frac{(n_{ik} + j_{sa}^s - j_{sa}^{ik} - s - l - k - j_{sa}^s)!}{(n_{ik} + j_{sa}^s - j_{sa}^{ik} - n - l_{sa} - l - k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n + 1) \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s - j_{sa} + 1 \wedge$$

$$j_s - j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n + 1 \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 1 \Rightarrow$$

$$\begin{aligned} j_s, j^{sa} \overset{DOST}{=} & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_s+j_{sa}-l} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_s - l - 1)!}{(\mathbf{l}_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_s - 1)!} \cdot \\
& \frac{(n_{sa} - n_{is} - l - 1)!}{(n_{sa} - n_{is} - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - n_{sa} - j_{sa} + 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge l_i \neq l \wedge l_s \geq 0 \wedge$$

$$j_{sa} \leq j^{sa} - 1 \wedge j_{sa}^s = j^{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}^s, \dots, j_{sa}^i\} \wedge$$

$$s \geq j_{sa}^s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{l_i + j_{sa} - l - s + 1} \sum_{j^{sa}=l_i + \mathbf{n} + j_{sa} - D - s}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1} \\
& \sum_{n+l_k}^n \sum_{n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1}
\end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^s + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^s - s)!}.$$

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - j_{sa} - j_{sa}^s)! \cdot (\mathbf{n} - j_{sa} - j_{sa}^s - s)!}.$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - j_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=2)}^{(l_{sa}+\mathbf{n}-D-j_{sa})} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - j_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_{sa})! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-$$

$$\sum_{n_i=n}^n \sum_{n_i=n}^{(j_s+1)} \sum_{n_i=n}^{(j_s+1)}$$

$$\sum_{n_{ik}=l}^{(l_s-l+1)} \sum_{n_{ik}=l}^{(l_s-l+1)} \sum_{n_{ik}=l}^{(l_s-l+1)}$$

$$\frac{(n_{ik} + j_{sa} - s - l_{sa} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D > n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=1}^n \sum_{i=1}^{\binom{D}{i}} \sum_{j^{sa}=j_{sa}}^{\binom{D}{j^{sa}}} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}-\mathbb{K}+1)} \\ & \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \left. \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \right) + \\ & \left( \sum_{k=1}^n \sum_{i=1}^{\binom{D}{i}} \sum_{j^{sa}=j_{sa}+1}^{\mathbf{l}_{sa}-i+1} \right) \end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!}$$

$$\frac{(l_{sa} - l_s - j_{sa} - 1)!}{(l_{sa} - j^{sa} - l_s + 1)! \cdot (n - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_s - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=0}^{(n)} \sum_{l \in \mathcal{L}_s} \sum_{a=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^{(n)} \sum_{(n_{sa}=n_i+j_{sa}-j^{sa}-\mathbb{k}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n + 1 \wedge l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_{sa} \leq j^{sa} - j_{sa} - 1 \wedge$$

$$n + j_{sa} - 1 \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_i \wedge l_i + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n + 1 \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=1}^n \sum_{i=1}^{( )} l_i \sum_{(j_s=1)}^{( )} j^{sa} = j_{sa}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{sa}=n-j^{sa}-\mathbb{k}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - 1)! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^n \sum_{i=1}^{( )} l_i \sum_{(j_s=1)}^{( )} j^{sa} = j_{sa}$$

$$\sum_{n_{ik}=n_{ik}+j_{sa}-j^{sa}-\mathbb{k}+1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} + j_{sa}^{ik} - n - 1 - s - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$



$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{s-1} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=1}^n \sum_{i=1}^{l_s} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}-\mathbb{K}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!}$$

$$\frac{(n_i - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_i - j^{sa})!}$$

$$\frac{(l_{sa} - i - j_{sa} + 1)!}{(l_{sa} - i - j_{sa} + 1)! \cdot (j^{sa} - j_{sa})!}$$

$$\frac{(D + j^{sa} - l_{sa})!}{(D + j^{sa} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^n \sum_{i=1}^{l_s} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_i=n_i+j_{sa}-j^{sa}-j_{sa}^{ik}+1)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K}}$$

$$\frac{(n_i + j_{sa}^{ik} - s - \mathbb{K} - j_{sa}^s)!}{(n_i + j_{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{K} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l_s \wedge D + l_s - \mathbf{n} = \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_{sa} + j_{sa}^a \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\ \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ \left. \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right)$$



$$\begin{aligned}
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2} \sum_{l_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}+j_s-n_{sa}-\mathbb{k})}^{n_{is}-j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_{is} - n_{is} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DO} = \sum_{k=l}^{l-j_{sa}^{ik}+2} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{is}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - \mathbb{k})}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + \mathbb{k} - n - l_i - j_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + \mathbb{k} \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - \mathbb{k} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_s \wedge$$

$$j_s + j_{sa} \leq j_s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - l_{sa} + j_{sa} - j_s - l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > \mathbb{k} \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \wedge \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa}+n_{sa}-j_{sa})} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (n_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{n_{ik}=\mathbf{n}+D-s+1}^{(l_s-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=\mathbf{n}-D-s+1}^{j_s+j_{sa}-1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s = l_s + n - D)}^{(j_s = l_s + n - D)} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_s} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{is} + j_s - n_{sa} - j^{sa} - k)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} + j_s - n_{sa} - j^{sa} - k - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - k)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=l}^{(j^{sa} - j_{sa})} \sum_{(j_s = l_s + n - D)}^{l_s + j_{sa} - l} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_s} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{is} + j_s - n_{sa} - j^{sa} - k)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$



$$\begin{aligned}
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{l_s-l+1} \sum_{n_{is}=l_s+n_{sa}-j^{sa}-k}^{n_{is}=l_s+n_{sa}-j^{sa}-k} \sum_{n_{sa}=l_{sa}-l+1}^{n_{sa}=l_{sa}-l+1} \frac{(l_s-l+1-k)!}{(n_{is}+j_s-j^{sa}-\mathbb{k})!} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{n_i=\mathbf{n}+\mathbb{k}} \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}=\mathbf{n}-j^{sa}+1} \frac{(n_i - n_{is} - 1)!}{(j_s - l_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^s+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-n-l_i-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}.$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = \mathbb{k} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - \mathbb{k} \wedge j_{sa}^s \leq j_{sa}^l - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \vee s: \{j_{sa}^l, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k} : z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa}^s - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_s+j_{sa}-l)} j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s$$

$$\sum_{n_i=\mathbf{n}}^n (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^{s}-j_{sa}^{ik}} (n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})$$

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_s^{s-1})! \cdot (n + j_{sa} - j^{sa} - s)!}{(l_s - l - 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + \mathbf{n} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - j_s + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_s - \mathbf{n} - s \wedge$$

$$2 \leq j_s - j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} < \mathbf{n} + j_s - s \wedge$$

$$l_{ik} + j_{sa} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{lk} + 1)}^{(l_s - l + 1)} \sum_{j^{sa} = j_s + j_{sa} - 1} \right. \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} - k}^{n_{is} + j_s - j^{sa} - k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - k)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{lk} + 1)}^{(l_{ik} + n - D - j_{sa}^{lk} + 1)} \sum_{j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{lk}}^{l_{ik} + j_{sa} - l - j_{sa}^{lk} + 1} \right. \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - k)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{is} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - n_{is} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s + l_{sa} - j^{sa} - \mathbf{n})! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^l = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, \dots, j_{sa}^l\} \wedge s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_Z: Z = \dots \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\ \left. \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \right. \\ \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right).$$



$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left( \sum_{k=l}^{(j^{sa} - l_{sa} - l)} \sum_{(j_s = l_s + n - D)}^{l_s + n - l} \sum_{j^{sa} = l_{sa} + n}^{l_s + j_s - j^{sa} - \mathbb{k}} \right)$$

$$\sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \sum_{n_{sa} = n - j^{sa} + 1}^{j^{sa} + 1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{l_{sa} - l + 1} \sum_{j^{sa} = l_{sa} + n}^{l_s + j_s - j^{sa} - \mathbb{k}}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$







$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} + 1 \leq \mathbf{l} \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+j_{sa}-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{s_{sa}}-\mathbb{k}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{is}-j_s+1)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{sa} - j_{sa}^s - s)!} \cdot \frac{(l_s - l)}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^s - s)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge \\
& j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee \\
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge \\
& j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee
\end{aligned}$$

$$\begin{aligned}
& (D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge
\end{aligned}$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s - l - 1)} \sum_{(j_s = l_s + n - D - j_{sa})}^{(l_s - l - 1)} \sum_{j_{sa} = j_s + j_{sa} - 1}^{(l_s - l - 1)} \right. \\ \left. \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_i - j_s - n_{is} - j_{sa} - \mathbb{k}} \right. \\ \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(l_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right. \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)}^{(l_{sa} + n - D - j_{sa})} \sum_{j_{sa} = l_{sa} + n - D}^{l_{sa} - l + 1} \right. \\ \left. \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa} - \mathbb{k}} \right. \\ \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$



$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{l_s-l} \sum_{j_s=l_i+n-D-s+1}^{l_{sa}+n-D-s+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \frac{(n_i - n_{is} - \mathbb{k} - 1)!}{(j_s - j^{sa} - \mathbb{k})! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) - \sum_{k=l}^{l_s-l+1} \sum_{j_s=l_i+n-D-s+1}^{l_{sa}+n-D-s+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \frac{(n_i - n_{is} - \mathbb{k})!}{(j_s - j^{sa} - \mathbb{k})! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg)$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^s+j_{sa}^{ik}-\mathbf{n}-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (\mathbf{n}+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-\mathbf{n}-l_i-j_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}^s-s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^s - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \{j_{sa}^s, \dots, j_{sa}^{lk}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-j_{sa}+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s+1)} \sum_{(n_{sa}=n+j_{sa}-j^{sa}+1)}^{(j_s+1)} \\
& \sum_{n_{ik}=n}^{( )} \sum_{(n_{sa}=n+j_{sa}-j^{sa}+1)}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s+1)} \\
& \frac{(n_{ik} + j_{sa} - s - l_{sa} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_{sa} \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} + 1 = l_s \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$\geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$> 4 \wedge s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k} - 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_s - l)!}{(l_s + j^{sa} - \mathbf{n} - 1)! \cdot (n_{is} + j_s - n_{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(j_s-j_s+1)} \sum_{(j_s=j_s+1)}^{(j_s-j_s+1)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(j_s-j_s+1)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$



$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_s+l}^{l_s+j_{sa}-l} \sum_{j_{sa}=D-1}^{j_{sa}-D-1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n+\mathbb{k}-j_{sa}+1}^{n_{is}+n-j_{sa}-\mathbb{k}} \\ & \frac{(n_i - j_s - 1)!}{(n_i - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + n - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} - \\ & \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\ & \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^s + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_{z=1}^{POST} = & \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=l_{sa}-D-j_{sa}+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_{sa}-l-j_{sa}+2)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\ & \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_{sa}-l-j_{sa}+2)} \end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^s + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j_{sa}^s - s)!} \cdot$$

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s + s - n - j_{sa} - j_{sa}^s)! \cdot (n - j_{sa} - j_{sa}^s - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s = l_{ik} \wedge l_{ik} - j_{sa} - s > 0 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \mathbb{k} + \mathbb{k} \wedge$$

$$\mathbb{k}_z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{j_{sa}=j_{sa}-1} \sum_{j_s=j_{sa}-1}^{j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+l_{ik}-j_s+1}^{\mathbf{n}} \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{\mathbf{n}}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_s}^{j_{sa}^s-j_s} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - l_{sa} - \mathbb{k} - j_s^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - l_{sa} - \mathbb{k} - j_s^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D > \mathbf{n} < n \wedge \mathbf{n} > D - l_i + 1 \wedge$$

$$2 \leq i \leq j^{sa} - j_{sa} - 1 \wedge$$

$$i + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - j_{sa} - l_s - s)!}{(D + j^{sa} - n - l_s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l+1)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j_{sa}-j_{sa}+1)} \sum_{(j_s=\mathbf{l}_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa}+1)} \frac{\mathbf{l}_{ik}+j_{sa}-j_{sa}^{ik}+1}{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-s} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i-j_s+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j_{sa}-j_s+1)! \cdot (n_i+j_s-n_{sa}-j_{sa}-\mathbb{k})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j_{sa})!} \cdot \\ \frac{(\mathbf{l}_s-\mathbf{l}-1)!}{(\mathbf{l}_s-j_s-\mathbf{l}+1)! \cdot (j_s-2)!} \cdot \\ \frac{(\mathbf{l}_{sa}-\mathbf{l}_s-j_{sa}+1)!}{(j_s+\mathbf{l}_{sa}-j_{sa}-\mathbf{l}_s)! \cdot (j_{sa}-j_s-j_{sa}+1)!} \cdot \\ \frac{(D+j_{sa}-\mathbf{l}_{sa}-s)!}{(D+j_{sa}-\mathbf{n}-\mathbf{l}_{sa})! \cdot (\mathbf{n}+j_{sa}-j_{sa}-s)!} + \\ \sum_{k=l}^{(\mathbf{l}_{ik}-\mathbf{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\mathbf{l}_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(\mathbf{l}_{ik}-\mathbf{l}-j_{sa}^{ik}+2)} \sum_{j_{sa}=\mathbf{l}_{ik}+j_{sa}-\mathbf{l}-j_{sa}^{ik}+2}^{\mathbf{l}_i+j_{sa}-\mathbf{l}-s+1} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot$$



$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s = j^{sa} + j_{sa} - l - j_{sa}^{ik} + 1)} \sum_{(l_i + j_{sa} - l - j_{sa}^{ik} + 1)} \sum_{(n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)} \sum_{(n_i = \mathbf{n} + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)} \sum_{(n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)} \sum_{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_s^i - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - s \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_i+j_{sa}-l-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-j_s+1)}^{j^{sa}=j_{sa}-1}$$

$$\sum_{n_i=n+1}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{j^{sa}-1}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_s}^{j_{sa}^s-1} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{j_{sa}^{ik}-1}$$

$$\frac{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - l_{sa} - \mathbb{k} - j_s^s)! \cdot (n + j_{sa} - j^{sa} - s)!}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - l_{sa} - \mathbb{k} - j_s^s)! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D - n < n \wedge n > D - l_i + 1 \wedge$$

$$2 \leq i \leq j^{sa} - j_{sa} - 1 \wedge$$

$$i + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D - n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s - j_s - l + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{is}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \frac{(l_s - l - \mathbb{k})}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + n - n - l_i - j_{sa}^i)! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} < n + j_{sa} - s \wedge$$

$$l_s - j_{sa}^{ik} + s - \mathbb{k} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = s > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, \dots, j_{sa}^i\} \quad s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > n - l = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$\begin{aligned}
f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{n_{is}+j_s-j_{sa}^{sa}-\mathbb{k}}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1} \\
& \sum_{(j_s=n+\mathbb{k}-j_s+1)}^n \sum_{(n_{is}+j_s-j^{sa}-\mathbb{k})}^{(n_{is}+j_s-j^{sa}-\mathbb{k})} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}=n-j^{sa}+1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1}
\end{aligned}$$



$$\sum_{n_i=\mathbb{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbb{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa} + j_{sa}^{ik} - \mathbb{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbb{n} + j_{sa} - j_{sa}^s - s)!} \cdot$$

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - \mathbb{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbb{n} - j_{sa} - j_{sa}^s - s)!}$$

$$((D \geq \mathbb{n} < \mathbb{n} \wedge l_s > D - \mathbb{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^s \leq \mathbb{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbb{n} < \mathbb{n} \wedge l_s > D - \mathbb{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^s \leq \mathbb{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbb{n} < \mathbb{n} \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{l_{sa}} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_s^s, \dots, \mathbb{k}, j_{sa}^s\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s \leq s + \mathbb{k} \wedge$$

$$j_s; Z = 1$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+\mathbb{n}-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa}+1)} \sum_{j_{sa}=l_{sa}+\mathbb{n}-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{l=\mathbf{l}}^{l_s} \sum_{(j_s=\mathbf{n}-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)} \cdot \frac{(n + j_{sa} - j^{sa} - s)!}{(l_s + l - 1)!} \cdot \frac{(l_s + l - 1)!}{(j_s - l + 1) \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^i\} \vee \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{sa}+n-D-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n_i - l_s - j_s + 1)!}{(n_i + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s}^{(n_{ik}-l-j_{sa}^{ik}+2)} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_k)}^{(n_i-j_s+1)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - j_{sa}^s)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(j_{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j_{sa}=l_i+l_s+n-D-s}^{l_s+j_{sa}-l} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_{sa} - l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_i+j_{sa}-l-s+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s - l - l)} \sum_{(j_s = j^{sa} - l_{sa} + 1)}^{(l_s - l - l)} \sum_{j^{sa} = l_{sa} + 1}^{(l_s - l - l)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_i = n + k)}^{(n_i - j_s + 1)} \sum_{(n_i = n + k)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s}^{(n_{ik} = n_{is} + j_s)} \sum_{(n_{sa} = n_{ik} + j_{sa} - j_{sa} - k)}^{(n_{sa} = n_{ik} + j_{sa} - j_{sa} - k)}$$

$$\frac{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - k - j_{sa}^s)!}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - k - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D + j^{sa} < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$((D + j^{sa} < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$



$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{j_s=l_i+n-D-s+1}^{n-l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{j_{sa}=l_i+n+j_{sa}-D-s} f_z^{DOS} S_{j_s, j_{sa}}^{DOS} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=j_s+j_{sa}-1} \end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k} - 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (l - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (D - j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{n_{is}=\mathbf{n}-D-j_{sa}+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{()}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \bigg) \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s + 1)!}{(l_s - l_s + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_s+j_{sa}-l}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^{s_{ik}}}^{(\quad)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{sa}-\mathbb{k})}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^{s_{ik}})}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^{s_{ik}}) \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s - l)}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} + \mathbf{n} - \mathbf{l}_i - j_s - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \{j_{sa}^s, \dots, j_{sa}^{ik}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_{sa}-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{(n-j_s+1)} \\
& \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-j_s+1)!} \cdot \\
& \frac{(n_{sa}-j_s-1)!}{(j^{sa}-j_s-1)! \cdot (\mathbf{n}+j_s-j_{sa}-j^{sa}-\mathbb{k})!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+\mathbf{n}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_{sa}-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_{sa}-l+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)}
\end{aligned}$$



$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOSI} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) +$$



$$\begin{aligned}
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=j_{sa}+2}^{j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} + 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(n_{sa} + j^{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} + 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - n - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D + j_{sa} - n$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_i \geq 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}^{ik}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge n = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \vee$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left( \frac{(D + j^{sa} - \mathbf{n} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{(j_s=2)}^{(l_s-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_s-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)}{(n_{ik}+j^{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)} \cdot \frac{(n+j_{sa}-j^{sa}-s)!}{(l_s+l+1) \cdot (j_s-2)!} \\
& \frac{(D-n+1)!}{(D+j^{sa}+s-n-j_{sa})!} \cdot \frac{(n+j_{sa}-j^{sa}-s)!}{(D-n+1)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} >$$

$$D - j_{sa} - n < l_s \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_s^s, \dots, \mathbb{k}, j_{sa}^s\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}; Z = 1$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right)$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(n + j_{sa} - n - s)!}{(D + j^{sa} - n - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=0}^{n_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_{is}-j_s+1)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i_l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i_l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 1 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_s, j_{sa}}^{DOST} \sum_{n_i = \mathbf{n} + \mathbb{k}}^{(l_{ik} - l - j_s + 2)} \sum_{j_s = l_i + \mathbf{n} - D - s + 1}^{l_{sa} - l + 1} \sum_{n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1}^{j_{sa} + \mathbf{n} - D} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{is} + j_s - j_{sa} - \mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(i - l - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \end{aligned}$$

$$\sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)} \sum_{j_{sa} = j_s + j_{sa} - 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^s+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-n-l_i-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}.$$

$$D \geq n < n \wedge l \neq i, l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_{sa}^s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > 1 \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{lk}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \right).$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=\mathbf{n}-D}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) \\
& \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik})} \sum_{j_s=l_i+n-l_{sa}+1}^{(n - (n_i - j_s + 1))} \sum_{j_{sa}=j_s+j_{sa}}^{(n - (n_i - j_s + 1))} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n - (n_i - j_s + 1))} \sum_{n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-l_k}^{(n - (n_i - j_s + 1))} \\
& \frac{(n_{ik} + j_{sa}^{ik} - n - j_{sa}^{lk} - j_{sa} - l_k - j_{sa})!}{(n_{ik} + j_{sa}^{ik} - n - j_{sa}^{lk} - j_{sa} - l_k - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n \wedge n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$2 \leq l \leq D - n + j_{sa} - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq n \leq n + j_{sa} - s \wedge$$

$$l_{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{\binom{()}{(j_s=j^{sa}-j_{sa}+1)}} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_s}^{l_s+j_{sa}-l} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{\substack{(n_i-j_s+1) \\ (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\ & \left( \sum_{k=l} \sum_{\binom{(j^{sa}-j_{sa})}{(j_s=2)}} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{\substack{(n_i-j_s+1) \\ (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \left. \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right) \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+j_{sa}^{ik}+1}^{n_{is}-j^{sa}-l_{ik}} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n+l_{ik}-j_s-j_{sa}+1)}^{n_{is}-j^{sa}-l_{ik}} \\
& \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - l_{ik})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{sa} - n_{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(D + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_{ik})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - l_{ik} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{ik} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^k - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^k, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{sa}^{D-I} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{K})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}+j_{sa}-l_k)}^{(n_i-j_s+1)} \frac{(n_i-j_s+1)!}{(n_{is}+l_k-j_s+1)!} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n_{ik}+j_{sa}^{ik}-s-l_k-j_{sa}^s)} \frac{(n_{ik}+j_{sa}^{ik}-s-l_k-j_{sa}^s)!}{(n_{ik}+j^{sa}+j_{sa}^{ik}-n-j_{sa}-l_{sa}-j_{sa}^s-s)!} \\
& \frac{(l_s-l)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
& \frac{(D+l_i)!}{(D+j^{sa}+n-l_i-j_{sa}^s)! \cdot (n+j_{sa}-j^{sa}-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i, l \wedge l_s \leq n - n + 1,$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_{sa} + j_{sa} - j_{sa} - l_{ik} \wedge$$

$$D + j_{sa} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n - l = l_k > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^i, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq s = s + l_k \wedge$$

$$l_k: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{\mathbf{n}+\mathbf{n}-D-j_s} \sum_{(j_s=\mathbf{n}+D-j_s)}^{l_{ik}+j_{sa}-l-j_{sa}^{lk}+1} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{lk}+1} \right) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k} - 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(n_{is} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - n_{is} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$



$$\left( (D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik}$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_{sa} + 1)!}{(l_s - j_s - l + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{sa} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$j_{sa}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - k)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$



$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} j^{sa} = j_s + j_{sa} - 1$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{(\quad)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \mathbf{n} - 1)!}{(D + j^{sa} + s - \mathbf{n} - j_{sa} - j_{sa}^s - j_{sa}^{ik})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa}^{ik} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{j_s} \sum_{j_s = j^{sa} - j_{sa} + 1}^{l_s + j_{sa} - l} \sum_{j_{sa} = j_{sa} + 1}^{l_s + j_{sa} - l} \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=l}^{(j^{sa} - j_{sa})} \sum_{(j_s = 2)}^{l_s + j_{sa} - l} \sum_{j_{sa} = j_{sa} + 2}^{l_s + j_{sa} - l} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \frac{(l_s + l - 1)!}{(l_s + l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n + 1)!}{(D + j^{sa} + s - n - j_{sa} - j_{sa}^s - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq n + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l^i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{l=1}^{(l_s-1)} \sum_{(j_s=2)}^{(l_s-1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_s-1)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j_{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(l + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (n_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{l=\mathbb{k}}^{(l_s-l+1)} \sum_{(j_s=2)}^{(j_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa}$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + j_{sa}^{ik} > \mathbf{l}_s \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \right. \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \mathbf{n} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - \mathbf{n} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - 1 + 1)!}{(l_s - l_s - 1 + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \mathbf{n} + j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - \mathbf{n} - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_t+\mathbf{n}-D-s+1)}^{l_s-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
 & \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_{sa} + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}^{sa}+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_{sa}^{sa}-1}^{j_{sa}^{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s}^{n_{is}=n+\mathbb{k}-j_s} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{n_{sa}=n-j_{sa}^{sa}+1} \frac{(n_i-j_s-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa}^{sa}-\mathbb{k})!} \cdot \frac{(n_{sa}-1)!}{(j_{sa}^{sa}-n-1)! \cdot (n-j_{sa}^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{sa}-s)!} \right) + \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}=n+\mathbb{k}-j_s+1} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{n_{sa}=n-j_{sa}^{sa}+1} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j_{sa}^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa}^{sa}-\mathbb{k})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}^{sa}-n-1)! \cdot (n-j_{sa}^{sa})!} \right)$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{(n-j_s+1)} \\
& \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-1)! \cdot (n_{sa}+1)!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+1)! \cdot (n-j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}
\end{aligned}$$



$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l \neq i_l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_t + j_{sa} - s > l_{sa} \wedge$$

$$l_t \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 1 \Rightarrow$$

$$j_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+j_{sa}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - l_{sa} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!} \\
& \frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq n - n + 1,$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^{ik} < n + j_{sa} - s,$$

$$l_{sa} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq n + l_{sa} - j_{sa} - j_{sa}^s \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \wedge \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_s - 1)!}{(l_s + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} + j_s - n_{sa} - s)!} \cdot \\
& \sum_{k=l}^{\binom{D-l_s-1}{j_s-j_s-l+1}} \sum_{(j_s=j_s-l+1)}^{(j_s=j_s-l+1)} \sum_{j_s=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{\binom{D-l_s-1}{j_s-j_s-l+1}} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\mathbf{n} > n < \mathbf{n} \wedge l \neq i, l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$



$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}^{ik}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j_{sa}-j_{sa}^{ik}+1)} \sum_{n_i=n_{is}+n_{sa}-j_{sa}^{ik}+1}^n \sum_{n_{is}=n_{sa}-j_{sa}^{ik}+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{(n_{is}+n_{sa}-j_{sa}^{ik}+1)} \frac{(n_i-j_s+1)!}{(j_s-j_s+1)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}+n_{sa}-j_{sa}^{ik}+1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa}^{ik}+1)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}-n-1)! \cdot (n-j_{sa}^{ik}+1)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{ik}+1)!} - \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}^{ik}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j_{sa}-j_{sa}^{ik}+1)} \sum_{n_i=n_{is}+n_{sa}-j_{sa}^{ik}+1}^n \sum_{n_{is}=n_{sa}-j_{sa}^{ik}+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{(n_{is}+n_{sa}-j_{sa}^{ik}+1)} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}^{ik}+1)!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s}^{L, \pi} &= \sum_{k=l}^{(\cdot)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\cdot)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}}^{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)}{(n_{ik} + j_{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)} \cdot \frac{(n + j_{sa} - j_{sa} - s)!}{(l_s - 1)!} \cdot \frac{(l_s - 1)!}{(D - 1)!} \cdot \frac{(D - 1)!}{(D + j_{sa} + s - n - j_{sa})!} \cdot \frac{(n + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq n + s - n \wedge$$

$$D \geq n < n \wedge l \neq l \wedge l_s > 0$$

$$j_{sa} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^s, \dots, j_{sa}^i\} \wedge S: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s$$

$$\mathbb{k}_z \cdot z = 1$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)}^{(j_s-2)} \sum_{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+\mathbb{k}}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{n_i=n+1}^{(l_{sa}-l-j_s+2)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{j_s-1} \sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}}^{j_s-1} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - n - l_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s^{ik} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - s \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_i-j_s-j_{sa}-\mathbb{k})} \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-l_{sa}-\mathbb{k}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{ik}+j_s-l_{sa}-\mathbb{k})!} \cdot \frac{(n_{sa}-j_{sa}-n+1)!}{(n_{sa}-j_{sa}-n+1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}.$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j}^{l_{ik}, \mathbf{s}} &= \sum_{i=1}^{(j - j_{sa} + 1)} \sum_{\substack{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1 \\ j^{sa} = l_i + \mathbf{n} + j_{sa} - D - s}} \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{\substack{(n_i - j_s + 1) \\ (n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}} \sum_{\substack{n_{is} + j_s - j^{sa} - \mathbb{k} \\ n_{sa} = \mathbf{n} - j^{sa} + 1}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_i+j_{sa}-l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{is} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{sa}}^{D, \mathbf{s}} &= \sum_{k=l}^j \sum_{\substack{(j_s=2) \\ (j_s=2)}}^{(j_s-1)+1} \frac{(j_s-1-l-j_{sa}^{ik}+1) \mathbf{l}_{ik} - l - j_{sa}^{ik} + 1}{j^{sa} = \mathbf{l}_{sa} + \mathbf{n} - D} \\ &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{\substack{(n_i - j_s + 1) \\ (n_i - j_s + 1)}}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(\mathbf{l}_s - l - 1)!}{(\mathbf{l}_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=l}^{(\mathbf{l}_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s=2)}^{(\mathbf{l}_{sa} - l + 1)} \sum_{j^{sa} = \mathbf{l}_{ik} + j_{sa} - l - j_{sa}^{ik} + 2} \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(n + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^n \sum_{(i_{ik}=i-j_{sa}+1)}^{(i_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{j^{sa}=l_{sa}+n-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{(n_{ik}+j_{sa}^s-j_{sa}^{ik})} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_{sa}+j_{sa}^{ik}-j_{sa}-\mathbb{k})} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i_l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(l_i + n - s)} \sum_{(j_s=2)}^{l_i + j_{sa} - 1} \sum_{j_{sa}=l_i + n + j_{sa} - D - s}^{l_i + j_{sa} - 1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ & \frac{(n_i - l_s - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \\ & \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s=l_i + n - D - s + 1)}^{l_i + j_{sa} - l - s + 1} \sum_{j_{sa}=j_s + j_{sa} - 1}^{l_i + j_{sa} - l - s + 1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s - 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - l_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_i - j_s - j^{sa} - s)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{n-l-j_{sa}^{ik}+2} \sum_{l_i=n-l_{sa}^{ik}+1}^{l_i+l_{sa}^{ik}-1} \sum_{j_s=j_s+j_{sa}-1}^{j_s+j_{sa}-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{(n_i-j_s+1)} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - j_{sa}^s - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n - l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 - j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j_{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+l-1} \sum_{j_{sa}=l_s+j_{sa}-l-j_{sa}^{ik}}^{l_s+l-1} \sum_{n_i=n+l-k-j_s}^n \sum_{(n_{is}=n+l-k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+l-k}^n \sum_{(n_{is}=n+l-k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - l)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{n_{sa}+j_{sa}-l_{sa}-j_s+1} \sum_{j_s=j^{sa}-j_{sa}+1}^{(n_{sa}+j_{sa}-l_{sa}-j_s+1)} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D+l_{ik}}^{(n_{sa}+j_{sa}-l_{sa}-j_s+1)}$$

$$\sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n_{sa}-j_{sa}+1)} \sum_{j_{sa}^{ik}}^{(n_{sa}-j_{sa}+1)}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - n - j_{sa} - l_{ik} - j_s + 1)!}{(n_{ik} + j_{sa}^{ik} - n - j_{sa} - l_{ik} - j_s + 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq l_i < n \wedge l \neq l_i \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s^i - j_{sa} + 1$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i < n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_i > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{ik}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_{ik}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{ik}+1)}^{(l_s-l+1)} j^{sa} = j_{sa} - 1$$

$$\sum_{n_i=n}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_{is}=n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}}^{(n_{ik}=n_{is}+j_{sa}^{s}-j_{sa})} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}$$

$$\frac{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - l_k - j_s^{s})!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - l_{sa} - l_k - j_s^{s})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$(D \geq n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j_s-l-j_{sa}^{ik}+1} \sum_{j^{sa}=j_{sa}+1}^{j^{sa}-j_{sa}+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{j^{sa}-l+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \end{aligned}$$







$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{j_{sa}} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-j_s-j_{sa}-\mathbb{k})} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} - \end{aligned}$$

$$\begin{aligned} & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{j_{sa}} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \frac{(n_{ik}+j_{sa}^{ik}-s-\mathbb{k}-j_{sa}^s)!}{(n_{ik}+j_{sa}^s+j_{sa}^{ik}-n-j_{sa}-\mathbb{k}-j_{sa}^s)! \cdot (n+j_{sa}-j_{sa}^s-s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-l+1)!} \cdot \frac{(D-l_i)!}{(D+j_{sa}+s-n-l_i-j_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!}.$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = l + \mathbb{k} \wedge$$

$$z = s$$

$$fz S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n-D}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{\mathbf{k}=\mathbf{n}-D-j_{sa}+1}^{(l_{ik}-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_s-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s) \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\frac{(l_s + l - 1)!}{(l_s + l + 1) \cdot (j_s - 2)!}$$

$$\frac{(D - n)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n \leq l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$



$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_s-l} \sum_{j^{sa}=l_i+n+j_{sa}-s}^{l_s+j_s-l} \frac{\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(j_s-2)! \cdot (n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{sa}+j_s-n_{sa}-j^{sa}-\mathbb{k})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_s+l_{sa}-j^{sa}-l_s)! \cdot (j^{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-\mathbf{n}-l_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_i+j_{sa}-l-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot$$



$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{l_s} \sum_{i=1}^{l_s - j_s - l + 1} \sum_{s=1}^{l_s + j_{sa} - l} \sum_{n_i = n + j_s - j_{sa} - D - s}^{n_i = n + j_s - j_{sa} - D - s + 1} \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik}}^{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} + 1} \sum_{n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k}}^{n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k} + 1} \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n) \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_s - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 1 \Rightarrow$$

$$\begin{aligned} j_s, j^{sa} \stackrel{DOST}{=} & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-l} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{K})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(\mathbf{l}_s - \mathbf{l} - 1)!}{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - \mathbb{k} + 1)!}{(j_s - 2)! \cdot (n_{is} - n_{sa} - \mathbb{k} + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k} - 1)!} \cdot \\
& \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_s - 1)!} \cdot \\
& \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_s - 1)!} \cdot \\
& \frac{(l_{sa} - j_{sa} + 1)!}{(l_{sa} - j_{sa} + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge l_i - l_s > 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{S}: \{j_{sa}^s, \dots, l_{sa}^i, j_{sa}^i, \dots, j_{sa}^i\} \quad \mathbf{S}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq s + \mathbb{k} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$fz S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{l_i + j_{sa} - l - s + 1} \sum_{j^{sa}=l_i + \mathbf{n} + j_{sa} - D - s}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1} \\
& \sum_{n+\mathbb{k} \leq n+l_s-j_s+1}^n \sum_{n+\mathbb{k}-j_s+1}^{n_i-j_s+1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1}
\end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{( )}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^s + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j_{sa}^s - s)!} \cdot$$

$$\frac{(l - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s + s - \mathbf{n} - l - j_{sa})! \cdot (\mathbf{n} - j_{sa} - j_{sa}^s - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - j_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-$$

$$\sum_{n_i=n}^n \sum_{n_i=n}^{(j_s+1)} \sum_{n_i=n}^{(j_s+1)}$$

$$\sum_{n_{ik}=l_i}^{(l_s-l+1)} \sum_{n_{ik}=l_i}^{(l_s-l+1)} \sum_{n_{ik}=l_i}^{(l_s-l+1)}$$

$$\frac{(n_{ik} + j_s - s - l_{sa} - j_{sa}^s)!}{(n_{ik} + j^{sa} + j_{sa}^{ik} - n - j_{sa} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D > n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=1}^{\mathbb{K}} \sum_{l=1}^{\mathbb{K}} \sum_{j_{sa}=j_{sa}}^{\mathbb{K}} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{sa}=\mathbf{n}-j_{sa}+1)}^{(n_i-j_{sa}-\mathbb{K}+1)}$$

$$\frac{(n_i - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} - \mathbb{K} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) +$$

$$\left( \sum_{k=1}^{\mathbb{K}} \sum_{l=1}^{\mathbb{K}} \sum_{j_{sa}=j_{sa}+1}^{\mathbf{l}_{sa}-l+1} \right)$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)}$$

$$\frac{(n_i - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} - \mathbb{k} + 1)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!}$$

$$\frac{(l_{sa} - l_s - j_{sa} - 1)!}{(l_{sa} - j^{sa} - l_s + 1)! \cdot (n - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_s - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(n)} \sum_{l \in \mathbb{I}} \sum_{a=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^{(n)} \sum_{(n_{sa}=n_i+j_{sa}-j^{sa}-\mathbb{k}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(n_{ik} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} - n - j_{sa} - \mathbb{k} - j_{sa}^s)! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n + 1 \wedge l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j^{sa} - j_{sa} - 1 \wedge$$

$$n + j_{sa} - 1 \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_i \wedge l_i + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n + 1 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$fzS_{j_s, j^{sa}}^{DOST} = \sum_{k=1}^n \sum_{i=1}^{( )} l_{(j_s=1)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)}$$

$$\frac{(n_i - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} - \mathbb{k} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - \mathbb{k} + 1)! \cdot (\mathbf{n} + j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbb{k} + 1)! \cdot (\mathbf{n} - s)!} \cdot$$

$$\sum_{k=1}^n \sum_{i=1}^{( )} l_{(j_s=1)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)} \sum_{n_{sa}=\mathbf{n}_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{j_{sa}^{ik}+1}$$

$$\frac{(n_{ik} - j_{sa}^{ik} - s - \mathbb{k} - j_{sa}^s)!}{(n_{ik} + j_{sa}^{ik} + j_{sa}^{ik} - \mathbf{n} - \mathbb{k} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$



$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=1}^{\mathbf{l}} \sum_{(j_s=1)}^{(\quad)} \sum_{j^{sa}=j_{sa}}^{l_{sa}-\mathbf{l}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa})}^{(n_i-j^{sa}-\mathbb{K}+1)}$$

$$\frac{(n_i - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} - \mathbb{K} + 1)!}$$

$$\frac{(n - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{sa} - \mathbf{l} - j_{sa} + 1)!}{(l_{sa} - j^{sa} - l_s + 1)! \cdot (j^{sa} - j_{sa})!}$$

$$\frac{(D + \mathbf{l} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{\mathbf{l}} \sum_{(j_s=1)}^{(\quad)} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{sa}=\mathbf{n}_i+j_{sa}-j^{sa}-j_{sa}^{ik}+1)}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K}}$$

$$\frac{(n_{sa} + j_{sa}^{ik} - s - \mathbb{K} - j_{sa}^s)!}{(n_{sa} + j^{sa} + j_{sa}^{ik} - \mathbf{n} - j_{sa} - \mathbb{K} - j_{sa}^s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$



$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned}
& \left( \sum_{j_s=j_{sa}}^{j^{sa}} \sum_{j_{sa}=n-j_s+1}^{n-j_s} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l}^{j^{sa}-j_{sa}} \sum_{j_s=l_{ik}+n-D-j_{sa}^{ik}+1}^{j^{sa}-j_{sa}} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n}^n \sum_{n_{is}=n-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \right)
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik})} \sum_{(j_s=l_{ik}+n_{is}-j_{sa}^{ik}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)} \sum_{(n_{is}=n-j_s+1)}^n \sum_{(n_{sa}=n-j^{sa}+1)}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}^{(\cdot)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n - n_{is} - j_s)!}{(n - n_{is} - j_s)!} \cdot \\
& \frac{(l_s - j_s - 1)! \cdot (j_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(j_s - l_i)!}{(j_s - l_i)!} \cdot \\
& \frac{(D - n_{is}^{sa} + s - l_i - j_s - 1) \cdot (n + j_{sa}^{sa} - s)!}{(D - n_{is}^{sa} + s - l_i - j_s - 1) \cdot (n + j_{sa}^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - 1 \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l \wedge l_{sa} + j_{sa}^{ik} - j_s \geq l_{ik} \wedge$$

$$D \geq n < n - l = \mathbb{k} + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s \leq \tau \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$



$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{( )} \sum_{(j_s = \dots = j_{sa} + 1 - l)}^{( )} \sum_{l_s + j_{sa} - l - j_{sa} + 1}^{( )} \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik} (n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + 2 \cdot j_s - j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}{(2 \cdot n_{is} + 2 \cdot j_s - j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$D \geq \mathbf{n} < \mathbf{n} \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+j_{sa}-1} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}-j_{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(l_{sa}+n-D-j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^s-s)!} \right) + \\ \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{sa}+n-D-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{j^{sa}} \\
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) - \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{(\quad)}
\end{aligned}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DO} = \left( \sum_{k=l}^{\binom{()}{j_s=j^{sa}-j_{sa}+1}} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right)$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right.$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - j_{sa} + 1)!}{(D + j_{sa} - l_{sa} - s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$







$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_s^{sa}}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n - j^{sa} - 1)!}{(n + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s + 1)!}{(l_{sa} - l_s - j_s + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned} f_{zj_{sa}}^{S_{j_{sa}}^{ST}} = & \left( \sum_{k=l}^{(l_s-l)} \sum_{(j_s=l_{ik}-D-j_{sa}^{ik}+1)}^{(l_s-l)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_s-l)} \right. \\ & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ & \left( \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}} \right) \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=\mathbf{n}-j_s+1}^{(l_s-1)} \sum_{j^{sa}=\mathbf{n}-j_s+1}^{(l_s-1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}}^{(n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik})} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{1}{(n + j_{sa} - s - j_s)!}$$

$$\frac{(l_s - l)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=j_{sa}+1)}^{(l_s+l_{sa}-l)} j^{sa=l_{sa}+n-D} \right. \\ & \sum_{n_i=n}^{(n_i-j_s+1)} \sum_{(n_{is}=n-j_s+1)}^{(n_{is}+j_s-j^{sa})} j^{sa+1} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\ & \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=l_s+\mathbf{n}-D)}^{(l_s+j_{sa}-l)} j^{sa=l_{sa}+\mathbf{n}-D} \right. \\ & \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \left. \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \right) \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s - k - D)}^{(l_{sa} - l_s + 1)} \sum_{j^{sa} = l_s + j_{sa} - k - D}^{(n_{is} + j_s - j^{sa})} \\
& \sum_{n_i = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{is} = n - j_s + 1}^{(n_{is} + j_s - j^{sa})} j^{sa+1} \\
& \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) - \\
& \sum_{k=l}^{( )} \sum_{(j_s = j^{sa} - j_{sa} + 1)}^{( )} \sum_{j^{sa} = l_i + n + j_{sa} - D - s}^{l_s + j_{sa} - l} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^i)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (j_s + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j} \frac{(n_{is}-n_{sa}-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s+j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l-j_{sa}+1)!}{(l_s+l_{sa}-j_s-l_s)! \cdot (j^{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+l_s-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} - \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_s+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{1}{(n + j_{sa}^s - s - j_s)!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = \mathbb{K} \wedge$$

$$j_{sa} \leq j_{sa}^i - 1, j_{sa}^i \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s \leq s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - l_{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa}-D-j_{sa})} \sum_{i=l_s+n-D-j_{sa}}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_s + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(n + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{l=1}^{l_s} \sum_{(j_s=\mathbf{n}-D-s+1)}^{j_s-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j_{sa}=l_{sa}+n-l}^{(\quad)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} - \sum_{k=l}^{(\quad)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$j_{sa}^{DOST} - j_{sa}^{sa} = \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}-l_{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{ik})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{is} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{is} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \geq D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} + 1 = l_s \wedge l_{ik} + j_{sa}^{ik} - l_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$n \geq n < n \wedge I = \mathbb{k} = 0$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{s-1}, j_{sa}^l\} \wedge$$

$$j_s \geq 3 \wedge s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_s+n+j_{sa}-D-1}^{l_s+j_{sa}-l}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_s - l - 1)!}{(l_s + j^{sa} - \mathbf{n} - 1)! \cdot (n_{is} + j_s - n_{sa} - s)!} \cdot \\
& \sum_{k=l}^{\binom{D-l_s-l-1}{j_s-j_s+1}} \sum_{(j_s=j_s+1)}^{(n_i-j_s+1)} \sum_{j_s=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{\binom{D-l_s-l-1}{j_s-j_s+1}} \\
& \frac{(2 \cdot j_s + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot j_s + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_{sa}-l-j_{sa}+2)} \sum_{n_i=n+lk}^n \sum_{(n_{is}=n-j_s-l)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_i-j_s+1)} \frac{(n_i-j_s+1)!}{(j_s-l-1)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_{sa}-l-j_{sa}+2)} \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-lk)} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^s - s - j_{sa}^{ik} - lk)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^s - n - j_{sa}^{ik} - lk - j_{sa}^s)!}.$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$fz_{j_s, j_{sa}}^{S_{j_s, j_{sa}}^{\mathbf{s}}} = \sum_{k=l}^{(l_{ik} - j_{sa}^{ik} + 2)} \sum_{(j_s = l_{ik} + \mathbf{n} - D - j_{sa}^{lk} + 1)}^{j_{sa}^{ik} + 2} \sum_{j^{sa} = j_s + j_{sa} - 1}$$

$$\sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$



$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}}^{(n_{is}=n+l_k-j_{sa}^{ik})} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}^{(n_{is}=n+l_k-j_{sa}^{ik})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - s - j_{sa}^{ik} - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{1}{(n + j_s - s - j_s)!}$$

$$\frac{(l_s - l - j_s - l + 1)! \cdot (j_s - 2)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^{ik} - j_{sa}^{ik} - n - l_i - j_s - 1)! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_s + j_{sa}^{ik} - 1 \leq j_s^{ik} \leq n + j_{sa}^{ik} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} = l_s \wedge l_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge l_i + j_{sa}^{ik} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l_i = 0 \wedge$$

$$j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, j_{sa}^{ik}, j_{sa}^{ik}\} \wedge$$

$$s > j_{sa}^{ik} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(n-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{n_{is}+j_s-j_{sa}^{ik}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_s - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{l_s-l+1} \sum_{l_i=n_{ik}-j_{sa}+1}^{l_i+n_{ik}-j_{sa}-1} \sum_{n_{is}=n_{ik}+j_{sa}-s}^{n_{is}+j_{sa}-1} \sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}}^{n_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{n_{sa}+j_{sa}^{ik}-j_{sa}-\mathbb{k}} \\
& \frac{(2 \cdot n_{is} + j_s - j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + j_s - j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \cdot n_{is} + j_s - j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s \geq 0 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} = 0 \wedge$$



$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j_{sa}^s - j_{sa} + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{j_{sa} = l_i + n + j_{sa} - D - j_{sa}^{ik} + 1}^{l_i + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{n_i = n}^n \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - j_{sa})!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + j_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{l_{ik} + j_{sa} - l - s + 1} \sum_{j_{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 2}^{l_i + j_{sa} - l - s + 1} \sum_{n_i = n}^n \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \frac{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}{j^{sa}=l_i+n+l_{sa}-D-s}$$

$$\sum_{n_i=n}^n \sum_{n_{is}=n+l_k-j_s+1}^n$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!}.$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq l_s < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1$$

$$j_s + j_{sa} - 1 \leq j^{sa} = n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$n_{sa} - l_{sa} \wedge I = l_k = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{l_i+j_{sa}-l-s+1} j^{sa}=l_i+n+j_{sa}-D-s \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s++1)}^{l_i+j_{sa}-l-s+1} j^{sa}=j_s+j_{sa}-1 \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s-1}}^{(n_{is}-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{is}-j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{is} - j_{sa} - \mathbb{k} - j_{sa}^{s-1} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l - 1)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge n + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa} - j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{s-1}, j_{sa}^l\} \wedge$$

$$j_s \geq 3 \wedge j_s - s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l}$$



$$\begin{aligned}
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{l-1} \sum_{l_s+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{1}{(n + j_s - s - j_s)!} \cdot$$

$$\frac{(l_s - l)}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} = l_s \wedge l_{sa}^{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = 0 = 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^s \leq j_s - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, j_{sa}^i\} \wedge$$

$$s > j_s = s \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1} \\
& \sum_{n_{is}=n-j_s+1}^n \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1}
\end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} (\mathbb{k} - j_{sa}^s))!} \cdot$$

$$\frac{(n_{is} - j_s - j_{sa}^s)!}{(n_{is} - j_s - j_{sa}^s)!} \cdot$$

$$\frac{(l_s - j_s - l_i - 1)!}{(l_s - j_s - l_i - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(j_s - l_i)!}{(D - j^{sa} + s - l_i - j_{sa}^s - 1) \cdot (\mathbf{n} + j_{sa}^s - a - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa}^s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa}^s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq \mathbf{n} < n, \mathbb{k} = \mathbb{k} = \mathbb{k} \wedge$$

$$j_s - j_{sa}^s - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}^{s-1}, j_{sa}^i\} \wedge$$

$$s \geq \mathbf{s}, \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$



$$\begin{aligned}
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_s - l - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{l=1}^{j_s-1} \sum_{(j_s=l+1)}^{(l_{ik}-l-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j_{sa}^{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} j_{sa}^{sa} = l_i + \mathbf{n} + j_{sa} - D - s$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s^{sa}+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{sa} - \mathbb{k} - j_{sa}^{ik} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!} \cdot$$

$$\frac{(l_s - l)}{(l_s - j_s + l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + \mathbb{k} - \mathbf{n} - l_i - j_s)! \cdot (n + j_{sa} - j_{sa}^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_i - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_i - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n, I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{sa}+n-D-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - n - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-1}^{(n_{is}-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{is}-j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{is} - j_{sa} - \mathbb{k} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^{ik})!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l - 1)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+l-1} \frac{(j^{sa}-j_{sa}+1)!}{(j_s-l_s+n-D)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\ & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_s+l_{sa}-j^{sa}-l_s)! \cdot (j^{sa}-j_s-j_{sa}+1)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\ & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_i+j_{sa}-l-s+1} \frac{(l_s-l+1)!}{(j_s-l_s+n-D)!} \cdot \frac{(l_i+j_{sa}-l-s+1)!}{(l_i-j_{sa}-l-s+1)! \cdot (j^{sa}-j_s-j_{sa}+1)!} \cdot \\ & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - l_s)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s + j_s - l)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_s+j_s-l)} \sum_{j^{sa}=l_{sa}+1}^{(l_s+j_s-l)} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_s+1)}^{(n_{sa}=n_{ik}+j_{sa}-j_s+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_{is}+j_s-j_{sa}-n_{ik}-j^{sa}-\mathbf{n}-j_{sa}^s-1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n_{is}+j_s-j_{sa}-n_{ik}-j^{sa}-\mathbf{n}-j_{sa}^s-1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{sa}-n_{ik}-j^{sa}-\mathbf{n}-j_{sa}^s-1}^{(n_{ik}=n_{is}+j_s-j_{sa}-n_{ik}-j^{sa}-\mathbf{n}-j_{sa}^s-1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_s-l_k)}^{(n_{sa}=n_{ik}+j_{sa}-j_s-l_k)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^s - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^s - l_k - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned} & \sum_{j_s=l_i+n-D-s+1}^{n-D-l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{n-D-l_i+j_{sa}-l-s+1} \sum_{n_i=n-j_s+1}^{n_i-j_s+1} \sum_{n_{is}=n-j_s+1}^{n_{is}+j_s-j_{sa}} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}+j_{sa}-j_{sa}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_i+j_{sa}-l-s+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}=l_i+n+j_{sa}-D-s} \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(D + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (D - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{(i_s=l)}^{(i_s=l+1)} \sum_{(j_s=D-j_{sa}+1)}^{(j_s=D-j_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n}^n \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s+1)}$$

$$\sum_{n_{ik}=n}^{( )} \sum_{(n_{sa}=n+j_{sa}-l_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa} - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$



$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s} \cdot \{j_{sa}^s, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s = \mathbf{l}_s + \mathbf{n} - D)}^{(\mathbf{l}_{sa} + \mathbf{n} - D - j_{sa})} \sum_{j_{sa} = \mathbf{l}_{sa} + \mathbf{n} - D}^{\mathbf{l}_{sa} - l + 1} \\ &\sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-s+1)}^{(l_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n_{is}+j_s-j^{sa})} \\
& \sum_{n_i=n+l-k}^{(n_i-j_s+1)} \sum_{(n_{is}=n-j_s+1)}^{(n_{is}+j_s-j^{sa})} j^{sa+1} \\
& \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-s+1)}^{(l_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n_{is}+j_s-j^{sa})} \\
& \sum_{n_i=n+l-k}^n \sum_{(n_{is}=n+l-k-j_s+1)}^{(n_{is}+j_s-j^{sa})}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{(\cdot)} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{1}{(n + j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_{is} + j_{sa} - j^{sa} - \mathbb{k})!}$$

$$D \geq \mathbf{n} < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\cdot)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=j_{sa}+2}^{n_{is}+j_s-j^{sa}} \right. \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{n_{is}+j_s-j^{sa}} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_{ik}+j_s-l-j_{sa}^{ik}+1)} j^{sa} = j_s + 1$$

$$\sum_{n_l=n+1}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n)} (n_{ik}+j_s+j_{sa}^s-j_{sa}-j_{sa}^{ik}-j_{sa}^{lk}-j_{sa}-l_k)$$

$$\sum_{n_{ik}=n_{is}+j_s+j_{sa}^s-j_{sa}-j_{sa}^{ik}-j_{sa}^{lk}-j_{sa}-l_k}^{(n)} (n_{ik}+j_s+j_{sa}^s-j_{sa}-j_{sa}^{ik}-j_{sa}^{lk}-j_{sa}-l_k)$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa} - s - n - j_{sa}^{ik} - l_k - j_{sa}^s)!}.$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$D \geq l_i < n \wedge l \neq l_i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_s = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} + n \wedge l = l_k = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1} \right. \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_s}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \right. \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \right)
\end{aligned}$$



$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j}^{(n_{is}-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}^s-j-\mathbb{k})}^{(n_{is}-j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i)!}{(D + j^{sa} + \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - j_s + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D - \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_s \wedge$$

$$j_s + j_s \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + j_s = \mathbf{l}_s \wedge \mathbf{l}_{sa} - j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D + j_s - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbb{k} = 0 \wedge$$

$$j_s < j_s - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$



$$\begin{aligned}
 f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\
 & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=l} \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\
 & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
 \end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_s}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} + j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{is} + j^{sa} - n_{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - l_{is} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s + 1)!}{(l_{sa} - j_s - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned} f_{Z^{sa}}^{POST} &= \sum_{k=1}^{n-l-j_{sa}^{ik}+2} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\ &\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \end{aligned}$$



$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s^{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}}^{(n_{ik}-l-j_{sa}^{ik}+2)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(n_{ik}-l-j_{sa}^{ik}+2)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - j_{sa}^{sa})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - j_{sa}^{sa})!}$$

$$\frac{1}{(n + j_s - s - j_s)!}$$

$$\frac{(l_s - l - j_s)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_s - n - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \neq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_s \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa}^{sa} \wedge$$

$$j_s + j_{sa} \leq j_s \leq n + j_s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{sa} - j_s \geq l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n, \mathbb{k} = \mathbb{k} =$$

$$j_{sa} - j_{sa}^{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{sa}, j_{sa}^i\} \wedge$$

$$s \leq j_{sa} = s \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - l_{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa}-D-j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(n + j_{sa} - \mathbf{n} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{i=\mathbf{n}+D-s+1}^{(l_s+l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{\mathbf{n}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_{sa}}^{DOST} = \left( \sum_{k=l}^{\left( \sum_{j_s=2}^{(j^{sa}-j_{sa})} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right)} \sum_{n_i=n}^{(n_i-j_s)} \sum_{n_{is}=n-j_s+1}^{(n_i-j_s)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=l}^{\left( \sum_{j_s=2}^{(j^{sa}-j_{sa})} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right)} \sum_{n_i=n}^n \sum_{n_{is}=n-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \right)$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{j_s = j^{sa} - j_{sa} + 1}^{j_s = j^{sa} + j_{sa} - l + 1} \sum_{j_{sa} = l}^{j_{sa} = l + 1} \\
& \sum_{n = n_{is} - j_s + 1}^n \sum_{n_{is} = n - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{( )} \sum_{j_s = j^{sa} - j_{sa} + 1}^{( )} \sum_{j^{sa} = l_i + \mathbf{n} + j_{sa} - D - s}^{l_s + j_{sa} - l}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\cdot)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n_{is} - j_s - j_{sa} - \mathbb{k})!}{(n_{is} - j_s - j_{sa} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(j_s - l_i)!}{(D - j_{sa}^s + s - l_i - j_{sa}^{ik} - 1) \cdot (n + j_{sa}^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > n \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} \leq l_{ik} \wedge$$

$$D + j_{sa}^{sa} - n \leq l_{ik} \leq D + l_s + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = i \wedge s = 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^s \leq j_s - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{sa}, j_{sa}^i\} \wedge$$

$$s \geq j_{sa}^{sa} = s \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s - 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - l_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - s)! \cdot (\mathbf{n} + j_s - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{\lfloor \frac{l_s - l + 1}{2} \rfloor} \sum_{i=l_i + \mathbf{n} - k - j_s + 1}^{\lfloor \frac{l_s - l + 1}{2} \rfloor} \sum_{j^{sa}=j_s + j_{sa} - 1}^{\lfloor \frac{l_s - l + 1}{2} \rfloor} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{()} \\
& \frac{(2 \cdot n_{is} - j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} - j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_s-1}^{(l_s-l+1)} \sum_{n_i=n}^{(n_i-j_s)} \sum_{n_{is}=n-j_s}^{(n_i-j_s)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right) +$$

$$\left( \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n}^n \sum_{n_{is}=n-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \right)$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-l_{sa}+1}^{(l_s-l+1)} \sum_{n_i=n}^{(n_i-j_s+1)} \sum_{n_{is}=n-j_s+1}^{(n_{is}+j_s-j^{sa})} \sum_{n_{sa}=n-j_s+1}^{(n_{sa}+j_s-j^{sa})} \sum_{j^{sa}=j_s+j_{sa}-l_{sa}+1}^{(n_{sa}+j_s-j^{sa})} \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \Bigg) - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_t+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$



$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_t \leq D + s - \mathbf{n}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j_{sa}-j_{sa}+1)-l} \sum_{(j_s-1)}^{(j_{sa}-j_{sa}+1)-l} \sum_{j_{sa}=j_{sa}+1}^{(j_{sa}-j_{sa}+1)-l} \sum_{n_i=n}^{(n_i-j_s+1)} \sum_{(n_{is}=n-j_s+1)}^{(n_{is}=n-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s - 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - l_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - j_s - s)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(j_s)} \sum_{(j_s=j_s-k)}^{(j_s)} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}-l} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{(j_s)} \\
& \frac{(2 \cdot n_{is} - j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} - j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n})) \vee$$

$$D \geq \mathbf{n} < n \wedge l = l = 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, j_{sa}^i\} \wedge$$

$$s > n \wedge s = s \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - j_s - s)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{l_s-1} \sum_{j_s=2}^{l_s-1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_s-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} - j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} - j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^s \leq j_s - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, j_{sa}^i\} \wedge$$

$$s > n \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \right.$$

$$\sum_{n_i=n}^n \sum_{(n_i=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{l_s - j_{sa} - 1} \sum_{j_s=2}^{l_s + j_{sa} - k} \sum_{j^{sa}=j_{sa}+2}^{l_s + j_{sa} - k - j_s + 1} \right) \cdot \\
& \sum_{n_i=n}^n \sum_{n_{is}=n-j_s+1}^{n_i+j_s-1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(i - j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2}^{l_s-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{n_{is}=n-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}
\end{aligned}$$



$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_s - 1)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_s - 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - j_s - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{i=l}^{(\cdot)} \sum_{(j_s=j_s)}^{(\cdot)} \sum_{j^{sa}=j_{sa}+1}^{j_{sa}-l}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K})}^{(\cdot)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$D \geq n < n \wedge l = l = 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^s \leq j_s - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, j_{sa}^i\} \wedge$$

$$s > n \wedge s = s \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \sum_{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2}^{l_{sa}-l+1} \sum_{n_{is}=j_s+j_{sa}}^{n_{is}+j_s-j^{sa}} \right) \cdot \\
& \sum_{n_i=\mathbf{n}+k}^n \sum_{n_{is}=\mathbf{n}-j_s+1}^{n_{is}+j_s-j^{sa}} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{sa}+j_s-j^{sa}} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(i_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+k}^n \sum_{(n_{is}=\mathbf{n}+k-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_z^{DOST}_{j_{sa}} = \left( \sum_{k=l}^{(j_s)} \sum_{(j_s^{sa}-j_{sa}+1)}^{(l_s+j_{sa}-l)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-l} \right. \\ \left. \sum_{n_i=\mathbf{n}}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{n_{is}+j_s-j^{sa}} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \right. \\ \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right. \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-l} \right)$$



$$\begin{aligned}
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{l_s+j_{sa}-l}^{l_s+j_{sa}-l} j^{sa}=l_i+n+j_{sa}-D-s$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - 1)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - 1 - j_{sa}^{is})!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!}$$

$$\frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_{sa} - n - l_i - j_{sa}^{is})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa}$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{is} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$



$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - 1) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=l_{sa}+n-D}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_t+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-$$

$$\sum_{n_t=n}^n \sum_{n_t=n}^{(j_s+1)} \sum_{n_t=n}^{(j_s+1)}$$

$$\sum_{n_{ik}=l}^{(j_s+1)} \sum_{n_{ik}=l}^{(j_s+1)} \sum_{n_{ik}=l}^{(j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_{sa} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_t)!}{(D + j^{sa} + n - l_t - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq l_t \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_t \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_s \leq j_{sa} - 1 \wedge$$

$$s \in \{j_{sa}^s, j_{sa}, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \right).$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+n-D}^{l_{sa}-l+1} \right) \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{n-j_s+1} \sum_{n_{sa}=n-j^{sa}+1}^{j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_s-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{j_s=l_i+n_{ik}-j_{sa}+1}^{(n_{ik}-j_s+1)} \sum_{j_{sa}=j_s+j_{sa}}^{(n_{ik}-j_s+1)} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n_{ik}-j_s+1}^{(n_{ik}-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{sa}-j_{sa}-l_k}^{(n_{ik}-j_s+1)} \cdot \\
& \frac{(2 \cdot n_{is} + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s^i - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - j_s^i \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = l_k = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_s=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}}$$

$$\frac{(n_{is}-n_{sa}-1)!}{(j_s-2)! \cdot (n_i-n_{sa}+1)!} \cdot$$

$$\frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!} \cdot$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot$$

$$\frac{(D+j_s-l_{sa}-s)!}{(D+j_{sa}-n_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^s - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{( )} \sum_{j_s=j^{sa}-j_{sa}+1}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1} \\ & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\ & \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{sa}-l+1} \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{is}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n - n_{is} - j_s - j_{sa} - j_{sa}^{is})!}{(n - n_{is} - j_s - j_{sa} - j_{sa}^{is})!} \cdot \\
& \frac{(l_s - j_s - j_{sa} - l - 1)!}{(l_s - j_s - j_{sa} - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(j_s - l_i)!}{(D - j^{sa} + s - l_i - j_{sa} - 1) \cdot (n + j_{sa}^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa}^{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{sa} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} - 2 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^{sa}, j_{sa}^{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s - 1 \Rightarrow$$

$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$j_{sq} \leq j_{sq}^i - 1 \wedge j_{sq}^s \leq j_{sq} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z \mathcal{S}_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\ & \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ & \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\ & \frac{(n_{is}-n_{sa}+1)!}{(j^{sa}-j_{sa}+1)! \cdot (n_{is}+j_{sa}-n_{sa}-j^{sa})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}+1)! \cdot (\mathbf{n}-j^{sa})!} \cdot \\ & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ & \frac{(D+j_s-l_{sa}-s)!}{(D+j_{sa}-n_{sa})! \cdot (\mathbf{n}+j_{sa}-j^{sa}-s)!} \cdot \\ & \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\ & \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\ & \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$\begin{aligned} \epsilon_Z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)}^{(j_s-1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n-j_s+1)} \\ &\sum_{n_i=n}^{(n_i-j_s+1)} \sum_{(n_{is}=n-j_s+1)}^{(n_{is}+j_s-j^{sa})} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{sa}+j_s-j^{sa})} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\ &\sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)}^{(j_s-1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n-j_s+1)} \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\cdot)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n_{is} - j_s - j_{sa} - \mathbb{k} - j_s)!}{(n_{is} - j_s - j_{sa} - \mathbb{k} - j_s)!} \cdot \\
& \frac{(l_s - j_s - j_{sa} - 1)! \cdot (j_s - 2)!}{(j_s - l_i)!} \cdot \\
& \frac{(D - j^{sa} + s - j_{sa} - l_i - j_s - 1) \cdot (n + j_{sa}^{sa} - s)!}{(D - j^{sa} + s - j_{sa} - l_i - j_s - 1) \cdot (n + j_{sa}^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa}^{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{sa} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} - 2 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s - 1 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}
\end{aligned}$$



$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_{ik} - l - s)} \sum_{(j_s = l)}^{(j_s = l_{ik} - l - s)} \sum_{j^{sa} = j_s + j_{sa}}^{(j^{sa} = j_s + j_{sa})} \cdot$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n_{is} - j_s + 1)}^{(n_i - j_s + 1)} \cdot$$

$$\sum_{n_{ik} = n_{is} + j_s^{ik}}^{(n_{ik} = n_{is} + j_s^{ik})} \sum_{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})} \cdot$$

$$\frac{(2 \cdot n_{is} + j_{sa} - n - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s^{ik} + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - n \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=2)}^{(j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\ \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s - l_{sa} - j_s - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_i+j_{sa}-l-s+1} \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j^{sa}=l_i+n-j^{sa}-D-s}$$

$$\sum_{n_i=n}^n \sum_{n_{is}=n+l_k-j_s+1}^n$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}-l_{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!}.$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq l_s < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s^i - j_{sa} + 1$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i + j_{sa} - s < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = l_k = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{sa}+n-D} \\
 & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + j^{sa} - l - j_{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2} \\
 & \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+1}^n \sum_{j_s=j_s+1}^{(j_s+1)} \sum_{j^{sa}=n+1-j_s+1}^{(j_s+1)}$$

$$\sum_{n_{ik}=n+1-j_s}^{( )} \sum_{(n_{sa}=n+1-j_s-j_{sa}^{ik}-l_{ik})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_{ik} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n+1 \wedge l_i \neq l \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq i \leq j^{sa} - j_{sa} - 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_{ik} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D - j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n+1 \wedge l = l_i = 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=2)}^{(l_i + \mathbf{n} - D - s)} \sum_{j^{sa} = l_i + \mathbf{n} + j_{sa} - D - s}^{l_i + j_{sa} - l - s + 1} \\
& \sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - 1 + 1)!}{(j_s + l_{sa} - j^{sa} - l_s + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(j_s + j^{sa} - \mathbf{n} - l_s + 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j^{sa} = j_s + j_{sa} - 1}^{l_i + j_{sa} - l - s + 1} \\
& \sum_{n_i = \mathbf{n}}^n \sum_{(n_{is} = \mathbf{n} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n_{sa}=n_{ik}+j_{sa}-l_k)} \sum_{(n_{is}=n_{ik}-j_{sa}^{ik}+l_k)}^{(n_{is}=n_{ik}-j_{sa}^{ik}+l_k)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - l_k - j_{sa}^{ik} - l_k - j_{sa}^{ik})!}$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(n + j_{sa}^s - s - j_s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - l_{ik} \leq l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\{j_{sa}^s, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}} \sum_{l_s+j_{sa}-l}^{l_s+j_{sa}-l}$$



$$\begin{aligned}
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - s - j_{sa}^{ik} - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{1}{(n + j_s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - j_s + 1)!}{(l_s - j_s + l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \neq n - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s < n + j_{sa} - s \wedge$$

$$l_s - j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} < D + l_s - j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = n \wedge$$

$$j_{sa} \leq j_{sa}^i - j_{sa}^s \leq j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^i, j_{sa}^s, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s \neq 1 \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1} \\
& \sum_{n_{is}=n-j_s+1}^n \sum_{n_{sa}=n-j^{sa}+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\cdot)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n - j_s - j_{sa} - j_{sa}^{ik} - j_{sa}^s)!}{(n - j_s - j_{sa} - j_{sa}^{ik} - j_{sa}^s - l - 1)!} \cdot \\
& \frac{(l_s - j_s - j_{sa} - j_{sa}^{ik} - j_{sa}^s - l - 1)! \cdot (j_s - 2)!}{(j_s - l_i)!} \cdot \\
& \frac{(D - j^{sa} + s - j_{sa}^{ik} - j_{sa}^s - l_i - j_{sa}^{ik} - j_{sa}^s - 1) \cdot (n + j_{sa}^{ik} - j_{sa}^s - s)!}{(D - j^{sa} + s - j_{sa}^{ik} - j_{sa}^s - l_i - j_{sa}^{ik} - j_{sa}^s - 1) \cdot (n + j_{sa}^{ik} - j_{sa}^s - s)!}
\end{aligned}$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n)$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=2)}^{(j^{sa}-j_{sa}+1)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s-1}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{is} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{is} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$



$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n}^n \sum_{(n_{is}=n_{is}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{sa}-j_{sa}+1)}^{(n_{is}-j_s+1)} \frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-j_{sa})!} \cdot \frac{(n_{sa}-n_{sa}-1)!}{(n_{sa}-n_{sa}-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_s+j_{sa}-j_{sa}-l_s)! \cdot (j_{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^s - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}.$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s = 0 \wedge$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^i - 1 \wedge$$

$$s: \{1, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 3 \wedge s = s \Rightarrow$$

$$f_{zS}^{DOST}_{j_s, j^{sa}} = \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa} - l + 1} \sum_{j^{sa}=l_{sa} + \mathbf{n} - D}^{l_{sa} - l + 1} \\ \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+\mathbf{n}-D-j_{sa}^{ik}-j_s-1)}^{(j_s=l_i+\mathbf{n}-D-j_{sa}^{ik}-j_s-1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+l_{ik}}^n \sum_{n_{is}=\mathbf{n}-j_s+1}^{(j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(i - l - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(j_s=l_i+\mathbf{n}-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(j_s+1)} \\
& \sum_{n_i=\mathbf{n}+l_{ik}}^n \sum_{(n_{is}=\mathbf{n}+l_{ik}-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K}}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (\mathbf{n} + j_{sa} - j^{sa} - j_s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_{sa} - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_t+j_{sa}-l-s+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_t+j_{sa}-l-s+1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n}^n \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s+1)}$$

$$\sum_{n_{ik}=l_i}^{( )} \sum_{(n_{sa}=l_i+j_{sa}-j_{sa}-k)}^{(j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - j^{sa} - j_{sa} - j_{sa} - j_{sa} - j_{sa})!}$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$



$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$fz_{j_{sa}}^{OST} = \sum_{k=l}^{j_s-1} \sum_{j_s=2}^{j_s-1} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}-l} \sum_{n_i=n}^{(n_i-j_s)} \sum_{n_s=n-j_s+1}^{n_{is}+j_s-j^{sa}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_s - \mathbf{l} - 1)!}{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{(\mathbf{l}_s - \mathbf{l} + 1)} \sum_{j_s=2}^{j_s-1} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1}$$



$$\begin{aligned}
& \sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_s + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{( )} \sum_{j^{sa}=j_{sa}+1}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-k)}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - k - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s} \cdot \{j_{sa}^s, j_{sa}^i, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s=2)}^{(l_i+n-D-s)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l-s+1} \\ &\sum_{n_i=n}^n \sum_{(n_{is}=n-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_i+j_{sa}-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n_i+j_s-j^{sa})} \\
& \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_{is}+j_s-j^{sa})} j^{sa+1} \\
& \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_i+j_{sa}-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n_i+j_s-j^{sa})} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_{is}-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(n + j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n} + 1)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (n + j_{sa} - j^{sa} - s)!}.$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - j_s - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j^{sa} - \mathbf{n} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}}^n \sum_{(n_{is}=\mathbf{n}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_t+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-$$

$$\sum_{n_t=n}^n \sum_{n_{ik}=n_{ik}+j_s+1}^{(n_{ik}+j_s+1)}$$

$$\sum_{n_{ik}=n_{ik}+j_s+1}^{(n_{ik}+j_s+1)} \sum_{(n_{sa}=n_{sa}+j_{sa}^{ik}-j_{sa}-k)}^{(n_{sa}=n_{sa}+j_{sa}^{ik}-j_{sa}-k)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - k - j_{sa}^{ik} - k - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_t)!}{(D + j^{sa} - n - l_t - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n+1 \wedge l = l_t \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n+1 \wedge l = l_t \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$



$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = {}_i \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = {}_i \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$

$$\begin{aligned} f^Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=1}^n \sum_{i=1}^{\binom{D}{j_s}} \sum_{j^{sa}=j_{sa}}^{\binom{D}{j_s}} \right. \\ & \sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}+1)} \\ & \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \left. \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \right) + \\ & \left( \sum_{k=1}^n \sum_{i=1}^{\binom{D}{j_s}} \sum_{j^{sa}=j_{sa}+1}^{\mathbf{l}_{sa}-i+1} \right) \end{aligned}$$



$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!}$$

$$\frac{(l_{sa} - l_s - j_{sa} - 1)!}{(l_{sa} - j^{sa} - l_s + 1)! \cdot (j^{sa} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_i - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_i - j_{sa} - j^{sa} - s - \mathbb{k})!} \cdot$$

$$\sum_{k=0}^{(\cdot)} \sum_{l \in \mathbb{N}} \sum_{a=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n_i} \sum_{(n_{sa}=\mathbf{n}-j_{sa}-j^{sa}-\mathbb{k}+1)}^{(n_i-j_{sa}-j^{sa}-\mathbb{k}+1)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(2 \cdot n_i + j_{sa} - j_{ik} - j_{sa} - j^{sa} - \mathbb{k} + 2)!}{(2 \cdot n_i + j_{sa} - n_{ik} - j_{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (\mathbf{n} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j^{sa} - j_{sa} \leq \mathbf{n} \wedge$$

$$j_{sa} + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} \wedge j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_i \wedge l_i + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s \Rightarrow$$



$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=1}^n \sum_{i=1}^{( )} l_i \sum_{(j_s=1)}^{( )} j^{sa} = j_{sa}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{(D + j_s - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - s)!} \cdot$$

$$\sum_{k=1}^n \sum_{i=1}^{( )} l_i \sum_{(j_s=1)}^{( )} j^{sa} = j_{sa}$$

$$\sum_{i=1}^{( )} \sum_{(n_{ik}=\mathbf{n}+j_{sa}-j^{sa}-l_{sa}^k+1)}^{( )} n_{sa}=\mathbf{n}_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}$$

$$\frac{(2 \cdot n_i + j_s - n_{ik} - j_s - j^{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{(2 \cdot n_i + j_s - n_{ik} - j_s - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (\mathbf{n} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_s - \mathbf{n} \wedge l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$



$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} = 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s \Rightarrow$$



$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=1}^n \sum_{i=1}^{\binom{D}{k}} \sum_{j^{sa}=j_{sa}}^{l_{sa}-i+1}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa})}^{(n_i-j^{sa}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!}.$$

$$\frac{(n_i - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_i - j^{sa})!}.$$

$$\frac{(l_{sa} - n_i - j_{sa} + 1)!}{(l_{sa} - n_{sa} - j_{sa} + 1)! \cdot (j^{sa} - j_{sa})!}.$$

$$\frac{(D + j^{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=1}^n \sum_{i=1}^{\binom{D}{k}} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}_i+j_{sa}-j^{sa}-j_{sa}^{ik}+1)}^{(\mathbf{n}-\mathbb{k})} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(2 \cdot n_i + j_{sa} - \mathbb{k} - j_s - j^{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{((n_i + j_{sa} - n_{ik}) \cdot j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (n - s)!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (n - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l_s \wedge D + l_s - \mathbf{n} = \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j_s - j_{sa} \wedge$$

$$n_i + j_{sa}^{ik} - j_{sa}^s \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j_{sa}=l_{sa}+n-D} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right) + \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \right)$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{j_{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \frac{n_{is} - j^{sa} - \mathbb{k}}{n_{is} + j_s - l_{sa} - j^{sa} + 1} \frac{(n_{is} - 1)!}{(n_{is} - j_s + 1)!} \cdot \frac{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}{(j^{sa} - n_{is} - 1)!} \cdot \frac{(n_{is} + j_s - l_{sa} - j^{sa})!}{(n_{is} - 1)!} \cdot \frac{(n - j^{sa})!}{(n_{sa} + j^{sa} - n - 1)!} \cdot \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \sum_{k=l}^{(\quad)} \sum_{(j_s = j^{sa} - j_{sa} + 1)}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{j_{sa} = l_i + n + j_{sa} - D - s}^{j_{sa} = l_i + n + j_{sa} - D - s} \sum_{n_i = n_{is} + j_{sa}^s - j_{sa}^{ik}}^n \sum_{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{(n_i - j_s + 1)} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{j_s}^{DOS} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+j_s+1}^n \sum_{(j_s=j_s+1)}^{(j_s=j_s+1)}$$

$$\sum_{n_{ik}=j_s+1}^{( )} \sum_{(n_{sa}=n_{sa}-j_{sa}-l_{ik})}^{( )} \sum_{j_{sa}^{ik}=j_{sa}-l_{ik}}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - l - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + l_i - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D > \mathbf{n} < n \wedge l_i > D - l_i + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_s - \mathbf{n} - l_i \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} < \mathbf{n} + j_s - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1} \right. \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_s}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{sa}-l-D-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \right) + \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_i + j^{sa} - \mathbf{n} - 1)! \cdot (n - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n_i - l_s - j_s + 1)!}{(n_i + l_{sa} - j^{sa} - \mathbf{n} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D - j^{sa} - \mathbf{n} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} S_{j_{sa}}^{DOST} = & \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_s+j_{sa}-l)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ & \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_s+j_{sa}-l)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right) \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{l-1} \sum_{l_s+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - 1)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - 1 - j_{sa}^{s})!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!}$$

$$\frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_{sa} - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n +$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_{sa} + j_{sa} - j_{sa}^{ik} - l_{ik} \wedge$$

$$D \geq l_i < n \wedge l = \mathbb{k} \geq 1 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, j_{sa}^{ik}, \dots, j_{sa}^{ik}\} \wedge$$

$$s \geq 3 \wedge s = 1 + \mathbb{k} \wedge$$

$$l_i \geq 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} - 1)!}{(l_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{is} - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{(i_s=i_{is}-j_s+1)}^{(i_s=i_{is}-j_s+1)} \sum_{(i_{sa}=i_{is}+j_s-j^{sa}-1)}^{(i_{sa}=i_{is}+j_s-j^{sa}-1)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$f_{j_s, j_{sa}}^{SDO} = \left( \sum_{k=l}^{\left( \sum_{i=1}^s (l_{ik} + n - D - j_{sa}^{ik}) \right)} \sum_{j_s = l_s + n - D}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \right) +$$

$$\sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) +$$

$$\left( \sum_{k=l}^{\left( \sum_{i=1}^s (l_{ik} + n - D - j_{sa}^{ik}) \right)} \sum_{j_s = l_s + n - D}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{j_{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik}}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \right) +$$

$$\sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - k}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-j_{sa}^k)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}}^{j_{sa}^{ik}+1} \\
& \sum_{(j_s=n+l_k-j_s+1)}^n \sum_{(n_{sa}=n-j^{sa}+1)}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\cdot)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n - j_s - \mathbb{k} - j_s)!}{(n - j_s - \mathbb{k} - j_s - l - 1)!} \cdot \\
& \frac{(l_s - j_s - l - 1)! \cdot (j_s - 2)!}{(j_s - l_i)!} \cdot \\
& \frac{(D - j^{sa} + s - l_i - j_s - 1) \cdot (n + j_{sa}^{sa} - s)!}{(D - j^{sa} + s - l_i - j_s - 1) \cdot (n + j_{sa}^{sa} - s)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge \\
& j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge \\
& j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \\
& 2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge \\
& 2 \leq j_s \leq j^{sa} - j_{sa} \wedge \\
& j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s = j_{sa} - k + 1)}^{(j_s)} \sum_{j_{sa} = l_{sa} + n - D}^{+j_{sa} - l} \right. \\ & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{is} = n + \mathbb{k} - j_s}^{n_{is} + j_s - j_{sa} - \mathbb{k}} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{sa} - j_{sa} + 1} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\ & \left( \sum_{k=l} \sum_{(j_s = l_s + n - D)}^{(j_{sa} - j_{sa})} \sum_{j_{sa} = l_{sa} + n - D}^{l_s + j_{sa} - l} \right. \\ & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{is} = n + \mathbb{k} - j_s}^{n_{is} + j_s - j_{sa} - \mathbb{k}} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{sa} - j_{sa} + 1} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \\ & \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \right) \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_s-l+1} \sum_{j^{sa}=l_s+l+1}^{l_s-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=n-j^{sa}+l_k}^{j^{sa}-l_k} \\
& \frac{(n_{is}-1)!}{(j_s-l_s+1)! \cdot (n_i-l_s+1)!} \cdot \\
& \frac{(n_{is}-1)!}{(j^{sa}-j_s-l_s+1)! \cdot (n_{is}+l_s-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+l_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )}
\end{aligned}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}.$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$\geq \mathbf{n} - l_{sa} \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{sa} - j_s - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 &\frac{(D + j^{sa} - n - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 &\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
 &\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
 &\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \wedge$$

$$D \geq \mathbf{n} < n \wedge l_{sa} - l_{ik} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}^{s-1}, \dots, j_{sa}^i\} \wedge$$

$$s \geq s_{sa}^i \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \wedge$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \right)$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{sa} + n - l_{sa} - j_{sa})} \sum_{j_s=l_s}^{l_{sa}-l+1} \sum_{n_{is}=n+l_k}^{n_{is}+j_s-j^{sa}-l_k} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}=n-j^{sa}+1} \right) \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(i - l - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_{sa}+n-D-j_{sa}+1}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_s - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s - 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_s - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l_i+l+1}^{l_i+l+1} \sum_{j_s=j_s+j_{sa}-1}^{j_s+j_{sa}-1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$



$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D}^{a-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}} \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(a-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^s - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{l=0}^{(\quad)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$



$$\sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - s - j_{sa}^{ik} - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!} \cdot$$

$$\frac{(l_s - l_i)!}{(l_s - j_s + l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + j_s - n - l_i - j_s)! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + j_s \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa}^{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l_i = j_s \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}^{ik}, j_{sa}^i\} \wedge$$

$$s > j_{sa}^{ik} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_s+n+j_{sa}-D-1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_s - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{( )} \sum_{j_s = j_s - j_{sa} - l_{sa} - l}^{( )} \sum_{l_s = l_s - l_{sa} - l}^{l_s + j_{sa} - l} \sum_{j_{sa} = j_{sa} - D - s}^{j_{sa} - D - s} \cdot \\
& \sum_{n_i = \mathbf{n} + j_s - 1}^{\mathbf{n}} \sum_{n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \cdot \\
& \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik}}^{( )} \sum_{n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k}}^{( )} \cdot \\
& \frac{(2 \cdot n_{is} + j_s - j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s - j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \cdot j_s - j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{sa}-j_{sa}+1}^{n_{is}+j_{sa}-\mathbb{k}} \frac{(n_i-j_s-1)!}{(n_i-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{sa}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+l_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=l} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{sa}-l-j_{sa}+2)} \sum_{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^s - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{1}{(n+j_{sa}^s-s-j_s)!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{POST} = \sum_{k=l}^{(l_{ik} - j_{sa}^{ik} + 2)} \sum_{(j_s - l_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1)}^{j_{sa}^{ik} + 2} \sum_{j^{sa} = j_s + j_{sa} - 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$



$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}}^{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^{is})!} \cdot$$

$$\frac{1}{(n + j_s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - j_s + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + n - l_i - j_s)! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_s - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa}^{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = 0 \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}^{ik}, j_{sa}^i\} \wedge$$

$$s > n - l_i = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$







$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_{sa}-j_{sa}+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}+1} \frac{(n_i-j_s+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_s-l_{sa}-j_{sa}-l_s)! \cdot (j_{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{ik}+j_{sa}-l-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}+1} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot$$







$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l} \sum_{(j_s=l_i+n-D-s++1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_i+j_{sa}-l-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{j^{sa}=j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{j_s}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_s}^{j_{sa}^s} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{j_{sa}^{ik}}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq l_s < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1$$

$$j_s + \mathbf{n} - 1 \leq j^{sa} = \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_s > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_{sa} \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - j_{sa} - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(j^{sa} - l_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^k}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+1}^n \sum_{(j_s=j_s+1)}^{(j_s=j_s+1)} \sum_{n_i=n+1}^{n+1} \sum_{(j_s=j_s+1)}^{(j_s=j_s+1)}$$

$$\sum_{n_{ik}=j_s-j_{sa}+1}^{( )} \sum_{(n_{sa}=n+1-j_{sa}^k-j_{sa}-l_{ik})}^{( )} \sum_{(j_s=j_s+1)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^k - j_{sa}^k - l_{ik} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + l_i - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D > n < n \wedge n > D - n + 1 \wedge$$

$$2 \leq i_c \leq j^{sa} - j_{sa} - 1 \wedge$$

$$j_c + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_c \wedge l_c + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D > n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{is}+j_s-j^{sa}-k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-1}^{(n_{is}-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{is}-j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l-j_{sa}+1)!}{(j_s+l_{sa}-j_s-l_s)! \cdot (j^{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \frac{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^n$$

$$\sum_{n_{ik}=j_s+j_{sa}-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(\mathbf{n} \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \bigg) \wedge$$



$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_{ik}+n-D-j_{sa}+1)}^{(l_{ik}+1)} \sum_{j_{sa}=j_s+n-D}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i+1)} \sum_{n_{is}=n+\mathbb{k}-j_s}^{n_{is}+j_s-j_{sa}-1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{sa}-1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_{ik}-l-j_s^{ik})} \sum_{(j_s=l_i+n-j_s^{ik}+1)}^{(j_s=l_i+n-j_s^{ik})} \sum_{j^{sa}=j_s+j_{sa}}^{(j^{sa}=j_s+j_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k)}^{(n_{is}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s^{ik}}^{(n_{ik}=n_{is}+j_s^{ik})} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}$$

$$\frac{(2 \cdot n_{is} + j_s^{ik} + j_{sa}^{ik} - n_{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s^{ik} + j_{sa}^{ik} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - l_k - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n) \wedge \mathbf{n} - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_s-1)} \sum_{j_s=l_s+n-D}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(j_s-1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_s+n-D}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_s + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} - 1)!}{(D + l_{sa} - j^{sa} - l_s)! \cdot (n_{is} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{is} - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{\infty} \sum_{j^{sa}=j_{sa}+1}^{(\quad)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}^{l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_i+j_{sa}-l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{j^{sa}-j_s+1} \\
& \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-j_s+1)!} \cdot \\
& \frac{(n_{is}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_s-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_s-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}
\end{aligned}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$



$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s}^{ST} &= \sum_{k=l}^{(j_s-l+1)} \sum_{(j_s-k+n-D)}^{j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{j_{sa}-l} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_s + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{(i_s=i_s^{sa}+j_s+1)}^{(i_s=i_s^{sa}+j_s+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$(\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - j_{sa} - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_{sa})! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_t+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-$$

$$\sum_{n_t=n}^n \sum_{n_t=n}^{(j_s+1)} \sum_{n_t=n}^{(j_s+1)}$$

$$\sum_{n_{ik}=1}^{(j_s+1)} \sum_{n_{ik}=1}^{(j_s+1)} \sum_{n_{ik}=1}^{(j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa} - l_s)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa} - l_s - j_{sa}^i - l_s - j_{sa}^s)!}$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_t)!}{(D + j^{sa} - n - l_t - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D > n < n \wedge l \neq l \wedge l \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa}$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{ik} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D > n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l} \sum_{(j_s=2)}^{(j_s=j^{sa}-j_{sa})} \sum_{j^{sa}=j_{sa}+2}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_s}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} + j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{is} + j^{sa} - \mathbf{n} + 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{K})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \sum_{n_i=n+\mathbb{k}}^{(n_i - n_{is} - 1)!} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{is} - n_{sa} - 1)!} \frac{(n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left( \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s=2)}^{l_{sa} - l + 1} \sum_{j_{sa}=j_s+j_{sa}} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_s + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(l + j_{sa} - 1 - s)!}{(D + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{j_s=2}^{l-j_{sa}^{ik}+2} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_s} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S_{j_s, j_{sa}^{sa}}} = \left( \sum_{k=l}^n \sum_{j_{sa}=j_{sa}^{sa}-j_{sa}+1}^{j_{sa}^{sa}} \sum_{j_{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-j_{sa}^{ik}+1} \sum_{n_i=n-l_{sa}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n-j_s+1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=l}^{(j_{sa}-j_{sa})} \sum_{j_s=2}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}^{ik}+1} \right)$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_{ik}-l_{sa}+2)} \sum_{(j^{sa})}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k} + j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s + l + 1)! \cdot (j_s - 2)!} \cdot$$

$$(D - l_i)!$$

$$(D + j_{sa} + n - l_i - j_s - 1)! \cdot (n + j_{sa} - j_{sa} - s)!$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l_s \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa}$$

$$j_s + j_{sa} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - l_{sa} + j_{sa} - j_{sa} \geq l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge \mathbb{k} \geq 1 \wedge$$

$$j_s - j_{sa} = 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{sa} - j_{sa} - j^{sa} - s)!} - \\
& \sum_{i=1}^{(l_s-l-j_{sa}^{ik}+2)} \sum_{(n_{is}=\mathbf{n}-D-s+1)}^{(n_{is}+j_s-1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{i,j_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik}-j_{sa}^{ik}+2)} \sum_{(j_s=1, \dots, n-D-j_{sa})}^{(l_{ik}-j_{sa}^{ik}+2)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_{ik}-j_{sa}^{ik}+2)} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right)$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{i=1}^l \sum_{(n_{sa}=n-D-j_{sa}+1)}^{(l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{is})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^s-j_{sa}-\mathbb{k})}^{()}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - j_s)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_s - n - l_i - j_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_i \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa}^{is} \wedge$$

$$j_s + j_{sa} \leq j_s \leq n + j_s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s + l_{sa} + j_{sa} - j_{sa}^{ik} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge \mathbb{k} \geq 1 \wedge$$

$$j_s - j_{sa}^{is} = 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}^{is}, \dots, j_{sa}^i\} \wedge$$

$$s \leq n - s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{()} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right)$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - l_{sa} - s)!} + \\
& \left( \sum_{k=l}^{(j^{sa}-j_s)} \sum_{(j_s=2)}^{(j^{sa}-j_s)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right) \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(n + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(n + j_{sa} - n - s)!}{(D + j^{sa} - n - 1)! \cdot (n - j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^n \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_i-j_s+1)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$



$$D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} + 1 \leq \mathbf{l} \leq \mathbf{l} - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=\mathbf{l}}^{(\mathbf{l}_s - \mathbf{l} + 1)} \sum_{j_s = \mathbf{l}_k + \mathbf{n} + j_{sa} - D - j_{sa}^{ik}}^{\mathbf{l}_{ik} + j_{sa} - \mathbf{l} - j_{sa} + 1} \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(-j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l}_s - \mathbf{l} - 1)!}{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \frac{(\mathbf{l}_{sa} - \mathbf{l}_s - j_{sa} + 1)!}{(j_s + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=\mathbf{l}}^{(\mathbf{l}_s - \mathbf{l} + 1)} \sum_{(j_s = \mathbf{l}_k + \mathbf{n} - D - s + 1)}^{(-j_s + 1)} \sum_{j^{sa} = j_s + j_{sa} - 1}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\cdot)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n - j_s - j_{sa} - j_s)!}{(n - j_s - j_{sa} - j_s)!} \cdot \\
& \frac{(l_s - j_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(j_s - l_i)!}{(D - j^{sa} + s - l_i - j_s - 1) \cdot (n + j_{sa}^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - j_s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{ik} \leq n + l_s + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l - \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^s = j_s - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}^{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq s + \mathbb{k} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(l_{ik} + \mathbf{n} - D - j_{sa}^{ik})} \sum_{j_s = l_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1}^{j_{sa} - l - j_{sa}^{ik} + 1} \sum_{j^{sa} = j_s + j_{sa}}^{D - j_{sa}^{ik}} \right. \\
& \quad \sum_{n_i = \mathbf{n} + \mathbb{k}}^{(n_i - \mathbf{n} + 1)} \sum_{(n_{is} - \mathbf{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{j^{sa} + 1} \\
& \quad \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \right. \\
& \quad \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \quad \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \quad \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \right. \\
& \quad \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1)}^{l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1} \sum_{j^{sa} = j_s + j_{sa}}^{j^{sa} + 1}
\end{aligned}$$



$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot$$

$$\left( \frac{(n + j_{sa} - n - s)!}{(D + j^{sa} - n - s)! \cdot (n - j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{l=1}^{l-1} \sum_{(n_{is}=n-D-s+1)}^{(n_{is}-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq (D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbb{k} \geq \mathbf{l}_i \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s \leq \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=j_{sa}+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{K})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa} - j_{sa}^{ik} - j_{sa}^{s})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{s} - j_{sa}^{ik} - j_{sa}^{s})!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!}$$

$$\frac{(l_s - l)!}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + j_{sa} - n - l_i - j_{sa}^{s})! \cdot (n + j_{sa} - j_{sa}^{s} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$j_{sa}^{DOST} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$







$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_{sa}}^{ST} = \left( \sum_{l=0}^{j_s} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{( )} \sum_{j^{sa}=j_{sa}+2}^{l_s+j_{sa}-l} \right)$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa} - j_{sa}^{ik} - j_{sa}^{s})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{s} - j_{sa}^{ik} - j_{sa}^{s})!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!}$$

$$\frac{(l_s - l)!}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$f_{z_{sa}}^{DOST} = \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \right. \\ \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \right)$$



$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(n + l_{sa} - j^{sa} - l_s)! \cdot (n - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(n + j_{sa} - n - s)!}{(D + j^{sa} - n - s)! \cdot (n - j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{l=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$



$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - (\mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D - j^{sa} - n_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l} \sum_{(j_s=2)}^{(j^{sa}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \left. \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right)$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{sa}=\mathbf{n}+j_{sa}-j_s+1)}^{n_i-j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} - j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}.$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_{sa}}^D \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{l_{sa}-l+1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - l_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(n_i - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{j_{sa}=j_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_s \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} j_z^{POST} = & \left( \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=\mathbf{n}-D-j_{sa}+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \right. \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\ & \left( \sum_{k=l}^{(l_{sa}+\mathbf{n}-D-j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1} \right) \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{i=1}^{l_s-l+1} \sum_{(i+l_{sa}=n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$



$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa} - j_{sa}^{ik} - j_{sa}^{s})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{ik} - j_{sa}^{s})!}$$

$$\frac{1}{(n + j_{sa} - s - j_s)!}$$

$$\frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + l_i)!}{(D + j_{sa} + j_{sa} - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j_{sa}^{s} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq n - n + 1$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^{s} \leq n + j_{sa} - s$$

$$l_{sa} - j_{sa}^{ik} + j_{sa}^{s} = l_s \wedge l_{sa}^{s} + j_{sa}^{ik} - j_{sa} = l_{sa} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n$$

$$D \geq n < n \wedge l = \mathbb{k} \geq n \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{s} = j_{sa}^{i} - 1 \wedge$$

$$s: \{j_{sa}^{i}, j_{sa}^{s}, \dots, j_{sa}^{i}\} \wedge$$

$$s \geq 3 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k} \geq 2 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{( )} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i - l_s - 1)!}{(l_i + j^{sa} - n - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s=j^{sa}-j_{sa}+1)} \sum_{(j^{sa}=j_{sa}+1)}^{(j^{sa}=j_{sa}+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})} \\
& \frac{(2 \cdot j_s + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot j_s + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(\quad)} \sum_{j_{sa}=j_{sa}+1}^{(\quad)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-j_s-j_{sa}-\mathbb{k})} \frac{(n_i - \mathbf{l}_s - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_i - n_{sa} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot \frac{(\mathbf{l}_s - \mathbf{l} - 1)!}{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(\quad)} \sum_{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_{sa}-\mathbf{l}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq \mathbf{n} < n \wedge l \neq i \wedge l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i - j_{sa} - s \geq l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\cdot)} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+1}^n \sum_{n+1-j_s+1}^{(j_s+1)} \\
& \sum_{n_{ik}=n+1-j_s}^{n_{ik}} \sum_{(n_{sa}=n+1-j_s)}^{(\cdot)} \sum_{j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{j_{sa}^{ik}} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D > \mathbf{n} < n \wedge \mathbf{l} \neq l \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq i \leq j^{sa} - j_{sa} - 1 \wedge$$

$$i + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D - s - 1 \leq l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}-l_k}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n - n_{sa} - 1)!}{(n + j^{sa} - n_{sa} - 1)! \cdot (n - j^{sa} + 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s}^{l, ST_a} &= \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{j_s=2}^{j_s=j_s+j_{sa}-1} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\ &\sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)}^{j_s=j_s+j_{sa}-1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_{is} + j_{sa} - j^{sa} - \mathbb{k})!}.$$

$$D \geq \mathbf{n} < n \wedge l \neq i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - j_{sa}^{ik} + j_{sa} - s > 0 \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_s^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, j_s, \dots, j_{sa}^i\}$$

$$s \geq 3 \wedge \mathbf{s} = s + 1 \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!}.$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(j_s=l_{ik}-l-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_s-1}^{j_{sa}=j_s}$$

$$\sum_{n_i=\mathbf{n}+l_{ik}-j_s+1}^{\mathbf{n}} \sum_{n_{is}=\mathbf{n}+l_{ik}-j_s+1}^{n_{is}=\mathbf{n}+l_{ik}-j_s+1}$$

$$\sum_{n_{ik}=\mathbf{n}+l_{ik}-j_s+1}^{n_{ik}=\mathbf{n}+l_{ik}-j_s+1} \sum_{n_{sa}=\mathbf{n}+l_{ik}-j_s+1}^{n_{sa}=\mathbf{n}+l_{ik}-j_s+1}$$

$$\frac{(2 \cdot n_{is} + l_{ik} + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + n_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$D \geq l_i < n \wedge l \neq l_i \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_s - j_{sa} + 1$$

$$j_s + \mathbf{n} + 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i + \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{n_{is}+j_s-j^{sa}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l - j_{sa} + 1)!}{(l_{sa} + j_{sa} - l - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \frac{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^n$$

$$\sum_{n_{ik}=j_s+j_{sa}-j_{sa}^{ik}}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq l_s < n \wedge l \neq l_i \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$j^{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=2)}^{(j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} - l - 1)!}{(l_{sa} + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l - j_{sa} + 1)!}{(j^{sa} + l_{sa} - j_s - l_{sa})! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}.$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{\left( \begin{smallmatrix} \phantom{0} \\ \phantom{0} \end{smallmatrix} \right)} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \frac{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}{j^{sa}=l_s+l_{sa}-\mathbf{n}-D}$$

$$\sum_{n_i=\mathbf{n}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^n$$

$$\sum_{n_{is}=j_s+j_{sa}-j_{sa}^{ik}}^{n_{is}=j_s+j_{sa}-j_{sa}^{ik}} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}^{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq l_s < n \wedge l \neq l_i \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$\mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} - l - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_{sa})! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_i+j_{sa}-l-s+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(j_s+j_{sa}+1)}$$

$$\sum_{n_i=\mathbf{n}+1}^n \sum_{n_{i+1}=\mathbf{n}+1}^{(j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}+j_{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=\mathbf{n}+j_{sa}-j_{sa}^{ik}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot \mathbf{n} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa} - \mathbb{k} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{n} \neq l_i \wedge l_i < D - \mathbf{n} + 1 \wedge$$

$$1 \leq i \leq j^{sa} - j_{sa} - 1 \wedge$$

$$i + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_i \wedge l_i + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D - j_{sa}^{ik} - 1 < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n, I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_s-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{is}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{is} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{is} - j^{sa} - s - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_s \leq n + j_{sa} - s \wedge$$

$$l_{ik} = j_{sa}^{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l \wedge l_s = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\{j_s^s, j_{sa}^s, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_s}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1)}^{(l_s - l + 1)} \sum_{j^{sa} = j_s + j_{sa} - 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{is} - j_{sa}^{ik} + 1}^{(n_{is} - j_{sa}^{is} + 1)} \sum_{(n_{sa} = n_{ik} + j_{sa} - \mathbb{k})}^{(n_{ik} - j_{sa}^{ik} + 1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - \mathbf{n} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^{is} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^{is})!}$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$



$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{sa}-j_{sa}+1)} \sum_{j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{lk}}^{l_{ik}+j_{sa}-l-j_{sa}^{lk}} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_{sa}-l_{sa}-j_{sa}-l_s)! \cdot (j_{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{lk}+2)} \sum_{j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{lk}+2}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa})!} \cdot$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - a - s)!}$$

$$\sum_{k=l} \left( j_s = j^{sa}_{sa} - j^{sa}_{sa+1} \right)$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{i=1}^{n_i-j_s+1} (n_i-j_s+1)$$

$$n_{ik} = n_{is} + j_{sa}^{ik} \quad n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{I}$$

$$\frac{(2 \cdot n_{is} + j_{sa}^{ik} + j_{sa}^{is} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_{sa}^{ik} + j_{sa}^{is} - n_{ik} - j_{sa}^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sq}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} + s - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D - n < n) \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j - j_{sa} + 1 \wedge$$

$$j \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{\textit{i}}\mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f^z S_{j_s, j_{sa}}^{n, T} &= \sum_{k=l}^{(l_{ik}-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{j_s-a-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\ &\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{j_s-a-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n_{is} - j_s - j_{sa} - \mathbb{k} - j_s)!}{(n_{is} - j_s - j_{sa} - \mathbb{k} - j_s)!} \cdot$$

$$\frac{(l_s - j_s - l_i - 1)! \cdot (j_s - 2)!}{(l_s - j_s - l_i - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_s - l_i)!}{(D - j_{sa} + s - l_i - j_{sa} - 1) \cdot (n + j_{sa} - a - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-1}^{(n_{ik}-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{ik}-j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - \mathbf{n} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}$$

$$\frac{(\mathbf{n} + j_{sa}^s - s - j_s)!}{(l_s - l - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\sum_{j_s=1}^{j_s^{sa}-l} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{j_{sa}^i-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_i=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_s + 1)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_s - j_{sa} - 1)!}{(l_s + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{is} - j_{sa} - j^{sa} - s)!} -$$

$$\sum_{(i_s=i_s)} \sum_{(i_{sa}=i_{sa}+1)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - j_{sa}^{ik} \vee$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}, j_{sa}^{sa}, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_Z: Z = 1 \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s - l - 1)} \sum_{j_s=j^{sa}-j_{sa}+1}^{(l_s - l - 1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{is}+j_s-j^{sa}-l_k)} \sum_{j^{sa}=1}^{j^{sa}+1}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{( )} \sum_{j_s=j^{sa}-j_{sa}+1}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^i)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (n_{is} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z \mathcal{S}_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{l_i + j_{sa} - l - s + 1} \sum_{j^{sa}=l_i + \mathbf{n} + j_{sa} - D}^{l_i + j_{sa} - l - s + 1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - j^{sa} - \mathbf{n} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=l_i + \mathbf{n} - D - s + 1)}^{l_i + j_{sa} - l - s + 1} \sum_{j^{sa}=j_s + j_{sa} - 1}^{l_i + j_{sa} - l - s + 1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{j^{sa}=j_s-1}$$

$$\sum_{n_i=n}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{is}=n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j^{sa}}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!}.$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$



$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$



$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$\begin{aligned} \mathbb{S}_{j_{sa}, j_{sa}^{sa}}^{DOST} = & \sum_{k=l}^{(l_{sa} + \mathbf{n} - l_{sa})} \sum_{(j_s=2)}^{l_{sa} - l + 1} \sum_{j^{sa} = l_{sa} + \mathbf{n} - D}^{l_{sa} - l + 1} \\ & \sum_{n_i = \mathbf{n} + \mathbb{K}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{K} - j_s + 1)}^{n_{is} + j_s - j^{sa} - \mathbb{K}} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{sa} + j_s - j^{sa} - \mathbb{K}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \mathbf{n} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - \mathbf{n} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(\mathbf{n} - l_s - s + 1)!}{(\mathbf{n} + l_{sa} - j^{sa} - s + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa})! \cdot l_{sa} - s)!}{(\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} \leq D + j_{sa} - n) \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 1 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=1}^n \sum_{l=1}^{\binom{D}{k}} \sum_{j^{sa}=j_{sa}} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)} \\
& \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \left. \frac{(l_{sa} - l_s - j_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=1}^n \sum_{l=1}^{\binom{D}{k}} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_i-j^{sa}-\mathbb{k}+1)} \\
& \frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(l_{sa} - j^{sa} - l_s + 1)! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^n \sum_{l=1}^{\binom{D}{k}} \sum_{j^{sa}=j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}_i+j_{sa}-j^{sa}-j_{sa}^{ik}+1)}^{\binom{D}{k}} \sum_{n_{sa}=\mathbf{n}_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}
\end{aligned}$$



$$\frac{(2 \cdot n_i + j_{sa} - n_{ik} - j_s - j^{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{(2 \cdot n_i + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (\mathbf{n} - s)!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l = {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=1}^{\binom{()}{l}} \sum_{j_s=1}^{\binom{()}{j_s}} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}-j_{sa}+1)}^{(n_i-j_{sa}-\mathbb{k}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} - s)!} -$$

$$\sum_{k=1}^{\binom{()}{l}} \sum_{j_s=1}^{\binom{()}{j_s}} \sum_{j_{sa}=j_{sa}}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n_i+j_{sa}-j^{sa}-j_{sa}^{ik}+1}} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(2 \cdot n_i + j_{sa} - n_{ik} - j_s - j^{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{(2 \cdot n_i + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (n - s)!}.$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$\left( (D \geq n < n \wedge l = {}_i l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$



$$(D \geq n < n \wedge l = {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=1}^n \sum_{l=1}^{l_{sa}-l+1} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_i-j_{sa}-\mathbb{k}+1)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j^{sa} - 2)! \cdot (n_i - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(l_{sa} - j^{sa} - l_s + 1)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$



$$\sum_{k=l}^{\sum_{j_s=1}^{( )}} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i+j_{sa}-j^{sa}-j_{sa}^{ik}+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_s}$$

$$\frac{(2 \cdot n_i + j_{sa} - n_{ik} - j_s - j^{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{(2 \cdot n_i + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_s^s + 2)! \cdot (n - s)!}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i - j_s - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} -$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_s, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \bullet \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l}^{\sum_{j_s=j^{sa}-j_{sa}+1}}^{( )} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right)$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik})}^{l_{ik}+j_s-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{ik}+j_s-n-D}^{j^{sa}=l_{ik}+j_s-n-D} \right) \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_{is}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - l_k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - l_k)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{is}-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - l_k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - l_k)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{( )} \sum_{j_s=j^{sa}-j_{sa}+l_{sa}-l_s+l_{ik}+1}^{( )} \sum_{j_{sa}=l_i+\mathbf{n}+j_{sa}-l_{sa}+l_{ik}+1}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}}^{( )} \sum_{n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k}}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_{sa}^{s_{ik}} + j_{sa}^{lk} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_{sa}^{s_{ik}} + j_{sa}^{lk} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_s - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq l - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=l_{sa}+n-l+1}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n+\mathbb{k}-j_{sa}+1)}^{(n_i-j_s-j_{sa}+1)} \frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-1-\mathbb{k})!} \cdot \frac{(n_{is}-1)!}{(n_{sa}-n_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(n-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}-l_s-j_{sa}+1)!}{(j_s+l_{sa}-j_{sa}-l_s)! \cdot (j_{sa}-j_s-j_{sa}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^s - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - \mathbf{n} - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{K})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left( \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l - j_{sa} + 1)!}{(l_{sa} + l_{sa} - j_{sa} - s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(n+l_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n+l_s+1)} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_i > D - l_s + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_i$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n, l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l}^{(j^{sa}-j)} \sum_{(j_s=l_s+n-D)}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \right. \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}-1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{K})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{is} + j^{sa} - n_{sa} - 1)! \cdot (n - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n_{is} - l_s - j_s + 1)!}{(n_{is} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j^{sa} - j_{sa} - l - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\sum_{j_s, j_{sa}}^{DOS} \sum_{l_s=l}^{(l_s-l)} \sum_{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{(j_s=l_s+l) \wedge (j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(j_s=l_s+l) \wedge (j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$



$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{K})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - 1)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - 1 - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!}$$

$$\frac{(l_s - l)}{(l_s - j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + j_{sa} - n - l_i - j_{sa}^{ik} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + j_{sa} \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - j_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_{ik} \wedge l_{sa} + j_{sa} - j_{sa}^{ik} - l_{ik} \wedge$$

$$D \geq l_i < n \wedge l = \mathbb{K} > j_{sa} \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^i, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = j_{sa} + \mathbb{K} \wedge$$

$$l_i \geq j_{sa} \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{n+n-D-j_s} \sum_{(j_s=l_s+1-p)}^{l_{ik}+j_{sa}-l-j_{sa}^{lk}+1} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}} \right) \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{is} - 1)!}{(n_{is} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l + 1)!}{(l_s - n_{is} - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \wedge$$

$$D \geq n < n \wedge l_{sa} - l_{ik} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$S: \{j_{sa}^s, \dots, j_{sa}^{s-1}, j_{sa}^i, \dots, j_{sa}^1\} \quad S: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \right. \\ \left. \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \right)$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{n_i = \mathbf{n} + \mathbb{k}}^{(j^{sa} - j_s - 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(j^{sa} - j_s - 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{l_s + j_{sa} - l} \right) \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(i - l - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + \mathbf{n} - D)}^{l_{sa} - l + 1} \sum_{j^{sa} = l_s + j_{sa} - l + 1}^{l_{sa} - l + 1} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_s - 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_i - j_{sa} + 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{\mathbb{k}} \sum_{(j_s + j_{sa} - j^{sa} - l_s + 1) = l_i + n + j_{sa} - D - s}^n \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik}} \sum_{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{(n_i - j_s + 1)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j^s < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \{j_{sa}^s, \dots, j_{sa}^{ik}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_s+j_{sa}-l)} j^{sa}=l_i+n_{ik}-D-s$$

$$\sum_{n_i=n}^n (n_{is}=n+lk-j_s+1)$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j^{sa}}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-lk)} (n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-lk)$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - lk)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - lk - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j^{sa} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, j_{sa}, \dots, j_{sa}^i\},$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 1 \Rightarrow$$

$$f_{Z \cup j_s}^{ST} = \left( \sum_{k=l \cup s}^{(l_s-1)+1} \sum_{j_{sa}=\mathbf{n}-D-j_{sa}+1}^{j_{sa}+\mathbf{n}-D-j_{sa}+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}+\mathbf{n}-D-j_{sa}+1} \right. \\ \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{K}}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{K})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) +$$



$$\begin{aligned}
& \left( \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s}^{(n_{is}+j_{sa}^s-1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{(n_{sa}-n_{ik}+j_{sa}-\mathbb{k})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - \mathbf{n} - j^{sa} - s + j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + l_i)!}{(D + j^{sa} - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} + 1 = l_s \wedge \mathbf{n} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$j_{sa} > 4 \wedge j_{sa} > s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_{sa}-l+1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_s - 1)!}{(D + j^{sa} - \mathbf{n} - l_s - 1)! \cdot (n_{is} + j_s - n_{sa} - s)!} \cdot \\
& \sum_{k=l}^{\binom{D}{j_s}} \sum_{(j_s=j_s+1)}^{(j_s=j_s+1)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{l_{sa}-1+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{\binom{D}{j_s}} \\
& \frac{(2 \cdot j_s + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot j_s + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-s}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{j_{sa}=1}^{(n_{is}+j_s-j_{sa}-1)} \\ & \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{is}-n_{is}-\mathbb{k}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa}-\mathbb{k})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \\ & \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-s}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})} \end{aligned}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{\mathbf{n}} = \sum_{k=l}^{\mathbf{n}} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_s+\mathbf{n}+j_{sa}-D-1}^{l_s+j_{sa}-l} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_s+j_{sa}-l}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^{s_{ik}}} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{sa}-\mathbb{k})}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - \mathbf{n}_{ik} - j^{sa} - s + j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - \mathbf{n}_{ik} - j^{sa} - s + \mathbf{n} - j_{sa} - \mathbb{k} - j_{sa}^s)!}$$

$$\frac{(\mathbf{n} + j_{sa}^s - s - j_s)!}{(\mathbf{l}_s - \mathbf{l} - 1)!}$$

$$\frac{(\mathbf{l}_s - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\frac{(D + j_{sa} - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} - 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} + j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{n}_{ik} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$> 4 \wedge \mathbf{s} \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=\mathbf{l}_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(\mathbf{l}_{sa}-\mathbf{l}-j_{sa}+2)} \sum_{j^{sa}=\mathbf{j}_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i - l_{sa} - 1)!}{(l_s + j^{sa} - \mathbf{n} - l_i - l_{sa} - 1)! \cdot (n_{is} + j_s - n_{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_{sa} - l_{sa} + 2)} \sum_{(j_s + \mathbf{n} - D - s - 2)}^{(l_{sa} - l_{sa} + 2)} \sum_{j^{sa}=j_s+j_{sa}-1}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot j_s + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot j_s + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{sa}}^{DOST} = & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(j_s=l_i+n-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}=j_s+j_{sa}-1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{j_{sa}+1}^{(n_{is}+j_s-j_{sa}-\mathbb{k})} \\ & \frac{(n_{is}-n_{is}-1)!}{(j_s+2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{is}-n_{is}-\mathbb{k}-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa}-\mathbb{k})!} \cdot \\ & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\ & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \cdot \\ & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(j_s=l_i+n-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{j_{sa}=j_s+j_{sa}-1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \end{aligned}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_t)!}{(D + j^{sa} + s - \mathbf{n} - l_t - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{l_s} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)} \sum_{j_{sa} = j_s + j_{sa} - 1}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s_{ik}}}^{(n_{ik}=n_{is}+j_{sa}^{s_{ik}})} \sum_{(n_{sa}=n_{ik}+j_{sa}^{s_{ik}}-\mathbb{k})}^{(n_{sa}=n_{ik}+j_{sa}^{s_{ik}}-\mathbb{k})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s + j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s + j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} - 1 \wedge$$

$$j_s - j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} + 1 = l_s \wedge l_{ik} + j_{sa}^{ik} + j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$\geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^s, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$> 4 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{l=1}^{j_s-1} \sum_{(j_s=l+1)}^{(l_{ik}-l-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_i+j_{sa}-l-s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} j_{sa}=l_i+n+j_{sa}-D-s$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k})}^{(n_{is}+j_{sa}-j_{sa}-\mathbb{k})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa} - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s + l + 1)! \cdot (j_s - 2)!} \cdot$$

$$(D - l_i)!$$

$$(D + j_{sa} + n - l_i - j_s)! \cdot (n + j_{sa} - j_{sa} - s)!$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa}^{ik} \leq n + j_{sa} - s \wedge$$

$$l_i - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = 0 > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, \dots, j_{sa}^i\} \quad s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > n_{is} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{l_i+j_{sa}-l-s+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_i+l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1} \\
& \sum_{i=\mathbb{k}}^n \sum_{j_s=\mathbf{n}+\mathbb{k}-j_s+1}^{n_i-j_s+1} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_i+l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n - n_{is} - j_s - j_{sa} - j_{sa}^{sa})!}{(n - n_{is} - j_s - j_{sa} - j_{sa}^{sa})!} \cdot \\
& \frac{(l_s - j_s - j_{sa} - j_{sa}^{sa} - l - 1)!}{(l_s - j_s - j_{sa} - j_{sa}^{sa} - l - 1)!} \cdot (j_s - 2)! \cdot \\
& \frac{(j_s - l_i)!}{(j_s - l_i)!} \cdot \\
& \frac{(D - n_{is}^{sa} + s - j_s - j_{sa} - j_{sa}^{sa} - l_i - j_{sa}^{sa} - 1) \cdot (n + j_{sa}^{sa} - s)!}{(D - n_{is}^{sa} + s - j_s - j_{sa} - j_{sa}^{sa} - l_i - j_{sa}^{sa} - 1) \cdot (n + j_{sa}^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{sa} - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1$$

$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j^{sa}-j_{sa}+1)} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l_s+l+1}^{l_s+l+1} \sum_{i_{ik}=l_s+n_{sa}-j^{sa}-l+1}^{l_s+l+1} \sum_{n_i=n+\mathbb{k}}^{n_i=n+\mathbb{k}-j_s+1} \frac{(l_s-l+1-j_{sa}+j_{ik}+j_{sa}-l-j_{sa}^{ik})!}{(j_s-j_s+1)! \cdot (n_{is}+j_s-j^{sa}-\mathbb{k})!} \cdot$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - j_s + 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{( )} \sum_{j_s=j^{sa}-j_{sa}+1}^{( )} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (j_s + j_{sa} - j^{sa} - \mathbb{k})!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} + j_{sa} - s = j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^{ik}, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \bullet \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z \cdot z = 1 \Rightarrow$$

$$fz S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_{ik}+\mathbf{n}-D-j_{sa}^{ik})} \sum_{(j_s=l_s+\mathbf{n}-D)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s+l_{sa}-j_{sa}^{ik}+1)} \sum_{j^{sa}=j_s+j_{sa}}^{j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{is}+j_s-j^{sa}-l_k)} \sum_{j^{sa}+1}^{j_{sa}^{ik}+1} \\
& \frac{(n_{l_i} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{l_i} - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{l_i} - l_k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - l_k)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s+l_{sa}-j_{sa}^{ik}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{lk})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (n_{is} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge \right.$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{sa}^{ik} + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{sa}^{ik} + j_{sa} - s > l_{sa}) \big) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbf{n} - \mathbf{n} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{lk} - 1 \wedge j_{sa}^{ik} = j_{sa}^{lk} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^i\} \quad \mathbf{s}: \{j_{sa}^s, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^i\} \wedge$$

$$s \geq j_{sa}^{lk} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{lk}+1)}^{l_{ik}+j_{sa}-l-j_{sa}^{lk}+1} \sum_{j^{sa}=l_{sa}+n-D}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}+1)} \sum_{(j_s=l_{ik}+n_{is}-j_{sa}+1)}^{(j_s=l_{ik}+n_{is}-j_{sa}+1)} \sum_{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)} \\
& \sum_{(j_s=j^{sa}-j_{sa}+1)}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{is}+j_s-j^{sa}-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}
\end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n_{is} - j_s - j_{sa} - \mathbb{k})!}{(n_{is} - j_s - j_{sa} - \mathbb{k})!} \cdot$$

$$\frac{(l_s - j_s - \mathbb{k} - 1)! \cdot (j_s - 2)!}{(l_s - j_s - \mathbb{k} - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_s - l_i)!}{(D - j^{sa} + s - l_i - j_{sa}^{ik} - 1) \cdot (n + j_{sa}^{ik} - a - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$D \geq \mathbf{n} < n, \mathbb{k} = \mathbb{k} > \mathbf{n} \wedge$$

$$j_s - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq \mathbf{n}, \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}+\mathbf{n}-D-j_{sa})} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=0}^{l_s-l-1} \sum_{n_i=\mathbf{n}-D-j_{sa}+1}^{(l_{ik}-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -
\end{aligned}$$



$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s^{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}^{ik}}^{(n_{ik}-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_s-j_{sa}-\mathbb{k})}^{(n_{ik}-j_s+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^{sa})!} \cdot$$

$$\frac{1}{(n + j_s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - j_s + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + \mathbb{k} - n - l_i - j_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D > \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \bigg) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$



$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j_{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j_{sa}=l_i+l_s+n-D-s}^{l_s+j_{sa}-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_{sa} - l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_i+j_{sa}-l-s+1} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_i+j_{sa}-l-s+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_{sa} - l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - l_s)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s + j_s - l)} \sum_{(j_s = j^{sa} - j_{sa} + 1)}^{(l_s + j_s - l)} \sum_{j^{sa} = l_{sa} + j_{sa} - l_s}^{(l_s + j_s - l)}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = n_{ik} + j_{sa} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{sa}}^{(n_{is} - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{sa} - j_{sa} - \mathbb{k})}^{(n_{is} - j_s + 1)}$$

$$\frac{(2 \cdot n_{is} - j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s - j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 1 \Rightarrow$$

$$S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_i+n-j_s)} \sum_{(j_s+l_i+n-D)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{n_{is}+j_s-j_{sa}-\mathbb{K}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{K}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{K})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l - j_{sa} - 1)!}{(l + l_{sa} - j^{sa} - l_s)! \cdot (j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (n_{is} - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{(i_s=l)}^{(i_s=l+1)} \sum_{(j_s=D-j_{sa}+1)}^{(j_s=D-j_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=l_s+n-D)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{sa} - j_{sa} - j_{sa} + 1)!}{(j_s + l_{sa} - j_s - l_{sa})! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n}^n \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(j_s+1)}$$

$$\sum_{n_{ik}=l_i}^{( )} \sum_{(n_{sa}=l_i+j_{sa}-l_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$



$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_s^i = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, \dots, j_{sa}^{ik}\} \wedge \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + 1$$

$$\mathbb{k}_Z: Z \rightarrow \mathbb{N} \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s = l_s + \mathbf{n} - D)}^{l_{sa} - l + 1} \sum_{j_{sa} = l_{sa} + \mathbf{n} - D} \\ &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{sa} = \mathbf{n} - j^{sa} + 1}^{n_{is} + j_s - j^{sa} - \mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-s+1)}^{(l_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n_{is}+j_s-j^{sa}-k)} \\
& \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_{is}+j_s-j^{sa}-k)} j^{sa+1} \\
& \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{is} - k - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - k)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-s+1)}^{(l_{sa}+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(n_{is}+j_s-j^{sa}-k)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_{is} + j_{sa} - j^{sa} - \mathbb{k})!}.$$

$$D \geq \mathbf{n} < n \wedge l \neq \mathbf{l} \wedge l_{sa} \leq D + j_{sa} - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} -$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_s, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \bullet \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}+1)}^{( )} \sum_{j_{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!}.$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_{ik}+j_s-l-j_{sa}^{ik}+1} j^{sa} = l_{ik}+j_s-l-j_{sa}^{ik}+2 \right) \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - l_k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - l_k)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{l_{sa}-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l_k} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - l_k - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - l_k)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa})!}.$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j - s)!} \Bigg)$$

$$\sum_{k=l} \binom{()}{\sum_{j_s=j^{sa}-j^{sa+1}} + j_{sa} - j_{sa+1}} \binom{ik}{j^{sa}=j_{sa+1}}$$

$$\sum_{j=0}^n \binom{n}{j} (-1)^{n-j} (n-j+1) = n$$

$$n_{ik} = n_{is} + j_{sa}^{ik} - j_{sa}^{ik} \quad (n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})$$

$$\frac{(2 \cdot n_{is} + j_{sa}^{sa} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(n_{is} + 2 \cdot j_s^{sa} - j_{sa}^{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} + s - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge i_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} \wedge$$

$$i + j_{sq} \leq n + j_{sq} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{lk}+2)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{n_{is}+j_s-j^{sa}-1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-1} \\ \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa}-\mathbb{k})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\ \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ \left. \frac{(D+j^{sa}-n-l_{sa})!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \\ \left( \sum_{k=l}^{(l_{ik}-l-j_{sa}^{lk}+2)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j^{sa}-\mathbb{k})!} \cdot \\ \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\ \left. \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \right)$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(j_s+1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(n+j_s+1)} \frac{(2 \cdot n_{ik} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D > n < n \wedge l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l_s \leq D + l_s + j_s - n - l_s$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} - n + l_s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - 1 < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 1 \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l} \sum_{(j_s=2)}^{(j^{sa}-j_{sa})} \sum_{j^{sa}=l_{sa}+n-D}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \right)$$



$$\begin{aligned}
& \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=\mathbf{l}_{ik}+j_{sa}-l-j_{sa}^{ik}+2}^{\mathbf{l}_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \mathbf{n} + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - j_s - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - \mathbf{n} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - j_s - 1)!}{(n_{sa} + j_s - \mathbf{n} - 1)! \cdot (j^{sa} - j_s)!} \cdot \\
& \frac{(j^{sa} - j_s - l - 1)!}{(j^{sa} - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(\mathbf{l}_{sa} - j_{sa} + 1)!}{(\mathbf{l}_{sa} - j_{sa} - s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^k - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^k, \dots, j_{sa}, \dots, j_{sa}^i\},$$

$$s \geq 4 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$

$$f_{j_s, j_{sa}}^{POST} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{K} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{K})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \sum_{j_{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-1}^{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})} \sum_{(n_{is}=n_{is}+j_{sa}-\mathbb{k})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n - j_{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{is} - j_{sa} - \mathbb{k} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l - 1)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{sa} - j_s \wedge$$

$$j_s + j_{sa} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_s^i \leq 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \left( \sum_{k=l}^{(l_{lk}-l-j_{sa}^{lk}+2)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{n_{is}+j_s-j^{sa}-lk} \right. \\
& \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{is}+j_s-j^{sa}-lk} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - lk - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - lk)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=l}^{(l_{lk}+n-D-j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\
& \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-lk} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - lk - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - lk)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \right) + \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j_{sa}-\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_i - 1)!}{(n_i + j^{sa} - \mathbf{n} - 1)! \cdot (n - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n_i - l_s - j_s + 1)!}{(n_i + l_{sa} - j^{sa} - \mathbf{n})! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(D - j^{sa} - \mathbf{n} - j_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_s, j_{sa}}^{DOs} \left( \sum_{i=l}^{( )} \sum_{j_s=j_{sa}-j_{sa}+1}^{l_s+j_{sa}-l} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{n} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-n_{is}-1)!} \right. \\ & \quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \quad \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \quad \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \end{aligned}$$



$$\begin{aligned}
& \left( \sum_{k=l}^{(j^{sa}-j_{sa})} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(j_s + j^{sa} - \mathbf{n} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_s-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s-1}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_s - n - l_s + 1 \leq l \leq l_i$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + l_s - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{is} - n_{sa} - 1)!}{(n_{is} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - j_s + 1)!}{(l_s + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j}^{D, l} = \left( \sum_{k=l}^{(l_s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s+1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{(l_s+1)} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \left. \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right) + \\ \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) +$$



$$\begin{aligned}
& \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}+\mathbf{n}-D-j_{sa}^{ik})} \sum_{j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \right. \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_s - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}}^{(n_{is}-j_{sa}^{ik}+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_k)}^{(n_{sa}-j_{sa}^{ik}+1)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{is} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{is} - j^{sa} - s - j_{sa}^{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(n + j_{sa}^s - s - j_s)!}{(l_s - l - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j^{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D > n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
& \frac{(n_i - n_{is} - j_s + 1)!}{(j_s - 2)! \cdot (n_{is} - n_{sa} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k} - 1)!} \cdot \\
& \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_s - 1)!} \cdot \\
& \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_s - 1)!} \cdot \\
& \frac{(l_{sa} - j_{sa} + 1)!}{(l_{sa} - j_{sa} + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot \\
 &\frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{sa} - j_{sa} + 1)!}{(j_s + l_{sa} - j_{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
 &\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
 &\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot
 \end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n})$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D - n_{sa} - n_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ \left( \sum_{k=l} \sum_{(j_s=2)}^{(j^{sa}-j_{sa})} \sum_{j^{sa}=j_{sa}+2}^{l_s+j_{sa}-l} \right. \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \left. \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \right)$$



$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{sa}=\mathbf{n}+j_{sa}+1)}^{n_i-j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (\mathbf{n} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - n_{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \Big) -$$

$$\sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_s+j_{sa}-l}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}.$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(l_s-l+1)} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\ & \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \right) \end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j=2)}^{j^{sa}=j_{sa}-1}$$

$$\sum_{n_i=n}^n \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}=n+l_k-j_s+1}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}}^{n_{ik}=n_{is}+j_{sa}^{ik}-j_{sa}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}$$

$$\frac{(2 \cdot n_{is} + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_{sa} - n_{ik} - j^{sa} - s - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - l_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$2 \leq \mathbf{l} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - \mathbf{l}_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_s \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbb{K} > \mathbf{n} \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = \mathbf{n} + \mathbb{K} \wedge$$

$$\mathbb{K} - \mathbf{n} \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \left( \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D}^{\mathbf{l}_s+j_{sa}-l} \right. \\ \left. \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{K}} \right)$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=l}^{(j^{sa}-s)} \sum_{i=n+\mathbb{k}}^{l_s+j_{sa}-l} \sum_{n_{sa}=\mathbf{n}-D}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \right) \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(i - l - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}
\end{aligned}$$



$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_s - 1)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_s - 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - \mathbf{n} - l_i - j_{sa} + 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{\mathbb{k}} \sum_{(j_s^{sa} - j_{sa} + l - j^{sa} = l_i + \mathbf{n} + j_{sa} - D - s)} \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^s - j_{sa}^{ik}} \sum_{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq {}_i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$D + l_s + j_{sa} - \mathbf{n} - l_{sa} + 1 \leq l \leq {}_i l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 = l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \vee$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
fz S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n - l_s - 1)!}{(n + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa})! \cdot l_{sa}!}{(n + j_{sa} - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_{sa} + j_{sa}^{ik} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} = & \left( \sum_{k=l} \sum_{(j_s=l_{sa}+n-D-j_{sa}^{sa}+1)}^{(l_s-l+1)} \sum_{j_{sa}=j_{sa}^{sa}-1}^{j_{sa}^{sa}-1} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{n_{sa}=n-j_{sa}^{sa}+1} \\ & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j_{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa}^{sa}-\mathbb{k})!} \cdot \\ & \frac{(n_{sa}-1)!}{(j_{sa}^{sa}-n-1)! \cdot (n-j_{sa}^{sa})!} \cdot \\ & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\ & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{sa}-s)!} \right) + \\ & \left( \sum_{k=l} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})} \sum_{j_{sa}=l_{sa}+n-D}^{l_{sa}-l+1} \right. \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{n_{sa}=n-j_{sa}^{sa}+1} \\ & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{is}-n_{sa}-\mathbb{k}-1)!}{(j_{sa}^{sa}-j_s-1)! \cdot (n_{is}+j_s-n_{sa}-j_{sa}^{sa}-\mathbb{k})!} \cdot \\ & \left. \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}^{sa}-n-1)! \cdot (n-j_{sa}^{sa})!} \right) \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j^{sa}=j_s+j_{sa}}^{l_{sa}-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \sum_{n_{sa}=n-j^{sa}+\mathbb{k}}^{n_{is}-j_s+1} \\
& \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-j_s+1)!} \cdot \\
& \frac{(n_{sa}-n_{sa}+j_s-1)!}{(j^{sa}-j_s-1)! \cdot (n_{sa}+j_s-j^{sa}-\mathbb{k})!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+j_s-j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{l_s-l+1} \sum_{j^{sa}=j_s+j_{sa}-1}^{l_s-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )}
\end{aligned}$$



$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l \neq i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i - j_{sa} - s \geq l_{sa} \wedge$$

$$l_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z \leq 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}.$$



$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+}^{l_{sa}-l+1} \\
& \sum_{n_i=n}^n \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)} \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)} \\
& \sum_{n_{ik}=j_{sa}+}^{( )} \sum_{(n_{sa}=j_{sa}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n + 1 \wedge l = \mathbb{k} \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} - 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D - j_s - \mathbb{k} < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$D \geq n < n + 1 \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \mathbf{n} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - j_{sa} - l_{sa} - s)!}{(n + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l \neq i l \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{j_s=j_{sa}-j_{sa}^{ik}+1}^{j_s=j_{sa}^{ik}-1} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}=j_{sa}^{ik}+1} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{is}+j_s-j_{sa}-k)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - k - 1)!}{(j_{sa}^{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - k)!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\ & \sum_{k=l} \sum_{(j_s=j_{sa}-j_{sa}^{ik}+1)}^{(j_s=j_{sa}^{ik}-1)} \sum_{j_{sa}=j_{sa}+1}^{j_{sa}=j_{sa}^{ik}+1} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \end{aligned}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{lk}-j_{sa}-\mathbb{k})}^{( )} \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{lk})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (n_{is} + j_{sa} - j^{sa} - \mathbb{k})!}.$$

$$D \geq \mathbf{n} < n \wedge l \neq i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - j_{sa}^{ik} + j_{sa} - s > 0 \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + \mathbf{n} - j_s \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_s \leq j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k} - j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i - \mathbb{k} - j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: 2 \leq \mathbb{k} \leq 1 \Rightarrow$$

$$f_Z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=j_{sa}+1}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!}.$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \frac{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}{j^{sa}=l_i+n+l_{sa}-D-s}$$

$$\sum_{n_i=n}^n \sum_{n_{is}=n+l_k-j_s+1}^n$$

$$\sum_{n_{ik}=n_{is}+j_{sa}-j_s}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-l_k)}^{( )}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - l_k)!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot$$

$$\frac{1}{(n + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq l_i < n \wedge l \neq l_i \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_s^i - j_{sa} + 1$$

$$j_s + l_i - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D - n \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_k, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_k, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{n_{is}+j_s-j^{sa}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{sa} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_s - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
 & \sum_{k=l}^{(l_{sa}-l-j_{sa}+2)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{n_{is}+j_s-j^{sa}} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
 & \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
 & \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_{Z^{sa}}^{POST} &= \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \end{aligned}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j^{sa}=j_s+j_{sa}-1}$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)} \\
 & \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
 & \frac{(n_{is} - j_s - j_{sa} - \mathbb{k})!}{(n_{is} - j_s - j_{sa} - \mathbb{k})!} \cdot \\
 & \frac{(l_s - j_s - j_{sa} - 1)! \cdot (j_s - 2)!}{(l_s - j_s - j_{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i - l_i)!}{(D - j^{sa} + s - l_i - j_{sa} - 1) \cdot (n + j_{sa}^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa}^{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{sa} - j_{sa} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{ik} \leq D + l_{ik} + j_{sa}^{sa} - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{sa} = j_{sa} - 1 \wedge j_{sa}^{sa} - j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^{sa}, \mathbb{k}, j_{sa}, \dots, j_{sa}^{sa}\} \vee \mathbf{s}: \{j_{sa}^{sa}, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \dots \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^n \sum_{i=2}^{(l_{ik}-l_{ik}^{k+2})} \sum_{j=0}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+2} \frac{(n_i - j_s + 1)!}{(j_s - n + \mathbb{k} - j_s + 1)!} \cdot \frac{n_{is} + j_s - j^{sa} - \mathbb{k}}{n_{sa} = n - j^{sa} + 1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^n \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n - j_s - j_{sa} - j_s)!}{(n - j_s - j_{sa} - j_s)!} \cdot \\
& \frac{(l - l_i - 1)!}{(l - j_s - j_{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(j_s - l_i)!}{(D - j_{sa}^s + s - j_s - l_i - j_{sa} - 1) \cdot (n + j_{sa}^s - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa}^s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^s - j_{sa} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{ik} \leq D + l_{ik} + j_{sa}^s - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = j_{sa}^s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \dots \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j_{sa}=l_{sa}+n-D}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^n \sum_{\substack{l_{ik}-l_{sa}+j_{sa}-l-j_{sa}^{ik}+2 \\ l_{ik}+j_{sa}-l-j_{sa}^{ik}+2}}^{(l_{ik}-l_{sa}+j_{sa}-l-j_{sa}^{ik}+2)} \sum_{\substack{j_s=n+\mathbb{k}-j_s+1 \\ n_{sa}=n-j^{sa}+1}}^{(n_i-j_s+1)} \sum_{\substack{j_s=n+\mathbb{k}-j_s+1 \\ n_{sa}=n-j^{sa}+1}}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^n \sum_{\substack{j_s=j^{sa}-j_{sa}+1 \\ j^{sa}=l_{sa}+n-D}}^{( )} \sum_{\substack{j_s=j^{sa}-j_{sa}+1 \\ j^{sa}=l_{sa}+n-D}}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1}
\end{aligned}$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)} \\
 & \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
 & \frac{(n - j_s - j_{sa} - j_{sa}^s)!}{(n - j_s - j_{sa} - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - j_s - j_{sa} - j_{sa}^s - 1)! \cdot (j_s - 2)!}{(l_s - j_s - j_{sa} - j_{sa}^s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i - l_j)!}{(D - j^{sa} + s - j_{sa}^s - l_i - j_{sa}^s - 1) \cdot (n + j_{sa}^s - a - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa}^s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^s - j_{sa} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_i \leq D + l_s + j_{sa}^s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 2 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_z: n + 1 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j^{sa}}^{DOST} &= \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}
 \end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_s=l_i+\mathbf{n}-D-s+1}^{(j_s+l_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \sum_{j_s=\mathbf{n}+\mathbb{k}-j_s+1}^n \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_s=l_i+\mathbf{n}-D-s+1}^{(j_s+l_i-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{(n_{is} - j_s - j_{sa} - \mathbb{k})!}{(n_{is} - j_s - j_{sa} - \mathbb{k})!} \cdot \\
& \frac{(l_s - j_s - j_{sa} - 1)! \cdot (j_s - 2)!}{(l_s - j_s - j_{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i - l_i)!}{(D - j^{sa} + s - l_i - j_{sa} - 1) \cdot (n + j_{sa}^s - a - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa}^s - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^s - j_{sa} = l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = n + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \dots \Rightarrow$$

$$f_z S_{j_s, j^{sa}}^{DOST} = \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{j_s = j^{sa} - j_{sa} + 1}^{j_s = l_s + j_{sa} - l + 1} \sum_{j_{sa} = l_{ik} + 1}^{j_{sa} = j_{sa} + 1} \\
& \sum_{i=\mathbb{k}+1}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}=n_{i-j_s+1}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l} \sum_{j_s = j^{sa} - j_{sa} + 1}^{( )} \sum_{j_{sa} = l_{ik} + \mathbf{n} + j_{sa} - D - j_{sa}^{ik}}^{l_s + j_{sa} - l}
\end{aligned}$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{sa})}^{(\quad)} \\
 & \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
 & \frac{(n_{is} - j_s - j_{sa} - \mathbb{k})!}{(n_{is} - j_s - j_{sa} - \mathbb{k})!} \cdot \\
 & \frac{(l_s - j_s - j_{sa} - 1)! \cdot (j_s - 2)!}{(l_s - j_s - j_{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i - l_i)!}{(D - j_{sa}^s + s - j_{sa}^{ik} - l_i - j_{sa}^{sa} - 1) \cdot (n + j_{sa}^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa}^{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{sa} - j_{sa} = l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{sa} - n - 1 \wedge$$

$$D \geq n < n - l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{sa} = j_{sa} - j_{sa}^i \wedge j_{sa}^{sa} - j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^{sa}, \mathbb{k}, j_{sa}, \dots, j_{sa}^{sa}\} \vee \mathbf{s}: \{j_{sa}^i, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s - j_{sa}^{sa} + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \dots \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}
 \end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1} \\
& \sum_{(j_s=n+\mathbb{k}-j_s+1)}^n \sum_{(n_{is}+j_s-j^{sa}-\mathbb{k})}^{(n_{is}-j_s+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{is}+j_s-j^{sa}-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n_{is}-j_s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{j_{sa}^{ik}+1}
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^s)}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(n_{is} - j_s - j_{sa} - 1)!}{(n_{is} - j_s - j_{sa} - 1)!} \cdot$$

$$\frac{(l_s - j_s - 1)! \cdot (j_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i - l_i)!}{(l_i - l_i)!} \cdot$$

$$\frac{(D - j^{sa} + s - l_i - j_{sa} - 1) \cdot (n + j_{sa} - a - s)!}{(D - j^{sa} + s - l_i - j_{sa} - 1) \cdot (n + j_{sa} - a - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n)$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_{ik}+j_{sa}-l-j_{sa}^{ik}+1} \sum_{j^{sa}=j_{sa}+1} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - l - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - l)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} + l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-l} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - l - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - l)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot
\end{aligned}$$



$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(\quad)} \sum_{j^{sa}=j_{sa}+1}^{\mathbf{l}_{ik}+j_{sa}-l-j_{sa}^{ik}+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^{is}-1}^{(\quad)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{sa}-\mathbb{k})}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - \mathbf{n}_{is} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - \mathbf{n}_{is} - j^{sa} - s - j_{sa}^{is} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{(\mathbf{n} + j_{sa}^s - s - j_s)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l}_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n})) \vee$$

$$(D > \mathbf{n} < n \wedge \mathbf{l} \neq \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{sa}}^{DOST} &= \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{is}+j_s-j_{sa}-\mathbb{k})} \\ &\frac{(n_i - j_s - 1)!}{(n_i - j_s - l + 1)! \cdot (n_i - j_s - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_{sa} - l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \\ &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} - \\ &\sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n_{is}+j_{sa}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\ &\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j_{sa}^s - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \end{aligned}$$



$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}.$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = 0 \wedge I \geq 0 \wedge$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{1, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{1, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s=2)}^{l_{sa} - l + 1} \sum_{j_{sa}=l_{sa} + \mathbf{n} - D}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+\mathbb{k}}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+\mathbf{n}-D-j_{sa}^{ik}-j_s-1)}^{(j_s=l_i+\mathbf{n}-D-j_{sa}^{ik}-j_s-1)} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \frac{(n_{is}+j_s-j^{sa}-\mathbb{k})!}{(j_s-j_s+1)!} \cdot \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{(n_{sa}=\mathbf{n}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(i - l)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(j_s=l_i+\mathbf{n}-D-s+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{(j^{sa}=j_s+j_{sa}-1)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{K}}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{K})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{K} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_{sa}^{ik})!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! (\mathbf{n} + j_{sa} - j^{sa} - j_s)!}$$

$$\left( (D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j^{sa}}^{DOST} = & \sum_{k=l}^{(j^{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_i+n+j_{sa}-D}^{l_s+j_{sa}-l} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + j_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\ & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_i+j_{sa}-l-s+1} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \end{aligned}$$



$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!}.$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}.$$

$$\sum_{k=l} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{(l_s+j_{sa}-l)} j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s$$

$$\sum_{n_i=\mathbf{n}}^n (n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=\mathbf{n}_{is}+j_{sa}^{s}-j_{sa}}^{(n_{sa}=\mathbf{n}_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!}.$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!}.$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D - \mathbf{n} < l_{sa} \leq D + l_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, j_{sa}, \dots, j_{sa}^i\}$$

$$s \geq 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \in j_{sa}}^{OST} = \sum_{l=1}^{j^{sa}-j_{sa}+1} \sum_{(j_s=2)}^{l_s+j_{sa}-l} \sum_{j^{sa}=l_{sa}+n-D}^{l_s+j_{sa}-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$



$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{l_{sa}-l+1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - j_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - l_s - 1 + 1)!}{(l_s - l_s - 1 + 1)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} - \\
& \sum_{k=l}^{( )} \sum_{(j_s=j^{sa}-j_{sa}+1)}^{( )} \sum_{j^{sa}=l_{sa}+\mathbf{n}-D}^{l_s+j_{sa}-l} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_{sa}^s-j_{sa}^{ik}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k})}^{( )} \\
& \frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \\
& \frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D \geq n < n \wedge l \neq l \wedge l_s > 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$S: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^i\} \quad S: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 =$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{l_i+j_{sa}-l-s+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1} \\
& \sum_{n+\mathbb{k}}^n \sum_{n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{is}+j_s-j^{sa}-\mathbb{k}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \sum_{j^{sa}=j_s+j_{sa}-1}^{l-s+1}
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{s}-j_{sa}^{ik}} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}^{s})}^{(\quad)}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot \frac{(n - j_s - j_{sa} - j_{sa}^{ik} - j_{sa}^s)!}{(n - j_s - j_{sa} - j_{sa}^{ik} - j_{sa}^s)!} \cdot \frac{(l_s - j_s - j_{sa} - j_{sa}^{ik} - j_{sa}^s - l - 1)!}{(l_s - j_s - j_{sa} - j_{sa}^{ik} - j_{sa}^s - l - 1)!} \cdot \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \frac{(l_i - l_j)!}{(l_i - l_j)!} \cdot \frac{(D - j^{sa} + s - j_{sa}^{ik} - j_{sa}^s - l_i - j_{sa}^{ik} - j_{sa}^s - l - 1) \cdot (n + j_{sa}^{ik} - j_{sa}^s - s)!}{(D - j^{sa} + s - j_{sa}^{ik} - j_{sa}^s - l_i - j_{sa}^{ik} - j_{sa}^s - l - 1) \cdot (n + j_{sa}^{ik} - j_{sa}^s - s)!}$$

$$\left( (D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l \neq l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$



$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+l_{sa}+n-D}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_{sa} - l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{l_{sa}-l+1} \sum_{j_{sa}=j_s+j_{sa}-1}^{l_{sa}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{is}+j_s-j_{sa}-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_s - 1)! \cdot (n_{is} + j_s - n_{sa} - j_{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_{sa} - l_{sa} - j_{sa} - l_s)! \cdot (j_{sa} - j_s - j_{sa} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} - l_s - j_{sa} + 1)!}{(j_s + l_{sa} - j^{sa} - l_s)! \cdot (j^{sa} - j_s - j_{sa} - l_s)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + \mathbf{n} - j_{sa} + 1)}^{(j_s = l_i + \mathbf{n} - j_{sa} + 1)} \sum_{j^{sa} = j_s + j_{sa} - l_s}^{(j^{sa} = j_s + j_{sa} - l_s)}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}$$

$$\sum_{n_{ik} = n_{is} + j_s^{ik}}^{(n_{ik} = n_{is} + j_s^{ik})} \sum_{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}^{(n_{sa} = n_{ik} + j_{sa}^{ik} - j_{sa} - \mathbb{k})}$$

$$\frac{(2 \cdot n_{is} + j_s + j_{sa} - n_{ik} - j^{sa} - s - j_{sa}^{ik} - \mathbb{k})!}{(2 \cdot n_{is} + 2 \cdot j_s + j_{sa} - n_{ik} - j^{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_{sa}^s - s - j_s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$((D > \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l = l_i \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$



$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n) \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} \wedge$$

$$j_s + j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \vee s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{K}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = n + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 1 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}}^{DOST} = \left( \sum_{k=1}^n \sum_{l=1}^{\binom{n}{k}} \sum_{j_{sa}=j_{sa}} \right)$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_i-j_{sa}-\mathbb{K}+1)}$$

$$\frac{(n_i - n_{sa} - \mathbb{K} - 1)!}{(j_{sa} - 2)! \cdot (n_i - n_{sa} - j_{sa} - \mathbb{K} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$



$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} - s)!} \Bigg) +$$

$$\left( \sum_{k=0}^{\mathbf{l}} \sum_{i=1}^{(\cdot)} \sum_{j_{sa}=j_{sa}+1}^{\mathbf{l}_{sa}-i+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{sa}=\mathbf{n}-j_{sa}+1)}^{(n_i-j_{sa}-\mathbb{k}+1)}$$

$$\frac{(n_i - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - 2)! \cdot (n_i - n_{sa} - j_{sa} + 1)!} \cdot$$

$$\frac{(n_i - 1)!}{(n_i - j_{sa} - \mathbf{n} - \mathbb{k} - 1)! \cdot (\mathbf{n} - j_{sa})!} \cdot$$

$$\frac{(n_i - \mathbf{l}_s - 1)!}{(n_i - j_{sa} - \mathbf{l}_s + 1)! \cdot (j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \mathbf{l}_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - \mathbf{l}_{sa})! \cdot (\mathbf{n} + j_{sa} - j_{sa} - s)!} \Bigg) -$$

$$\sum_{k=0}^{\mathbf{l}} \sum_{i=1}^{(\cdot)} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i+j_{sa}-j_{sa}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}}$$

$$\frac{(n_i - j_{sa} - n_{ik} - j_s - j_{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{(n_i + j_{sa} - n_{ik} - j_{sa} - \mathbf{n} - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (\mathbf{n} - s)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + s - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l} \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$\mathbf{l}_s \leq j_s \leq \mathbf{n} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=1}^{\binom{D}{l}} \sum_{j_s=1}^{\binom{D-l}{j_s}} \sum_{j_{sa}=j_s}^{\binom{D-l-j_s}{j_{sa}}} \frac{(n_i - j_s - \mathbb{k} + 1)!}{(j_{sa} - 2)! \cdot (n_i - j_s - \mathbb{k} + 1)!} \cdot \frac{(n_{sa} - 1)!}{(n_i + j_{sa} - \mathbb{k} - 1)! \cdot (n - j_{sa})!} \cdot \frac{(n + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} - \sum_{k=1}^{\binom{D}{l}} \sum_{j_s=1}^{\binom{D-l}{j_s}} \sum_{j_{sa}=j_s}^{\binom{D-l-j_s}{j_{sa}}} \frac{(2 + n_i + j_{sa} - n_{ik} - j_s - j_{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{(2 + n_i + j_{sa} - n_{ik} - j_{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (n - s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$



$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge$$

$$\mathbf{l}_{ik} \leq D + j_{sa}^{ik} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{sa} - j_{sa} + 1 > \mathbf{l}_s \wedge$$

$$\mathbf{l}_{sa} \leq D + j_{sa} - \mathbf{n} \wedge \mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n}) \vee$$

$$(D \geq \mathbf{n} < n \wedge \mathbf{l} = \mathbf{l}_i \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j^{sa} - j_{sa} + 1 \wedge$$

$$j_s + j_{sa} - 1 \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$\mathbf{l}_i \leq D + s - \mathbf{n}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \vee \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{j_s, j_{sa}}^{DOST} = \sum_{k=1}^{\binom{D}{l}} \sum_{j_s=1}^{\binom{D-l}{l}} \sum_{j_{sa}=j_s}^{\binom{D-l}{l}} \frac{(n_i - j_{sa} - \mathbb{k} + 1)!}{(j_{sa} - 2)! \cdot (n_i - j_{sa} - \mathbb{k} + 1)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{sa} - l_s - j_{sa} + 1)!}{(l_{sa} - j_{sa} + l_s + 1)! \cdot (j_{sa} - j_{sa})!} \cdot \frac{(D - l_{sa} - l_{sa} - s)!}{(D + l_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} - \sum_{k=1}^{\binom{D}{l}} \sum_{j_s=1}^{\binom{D-l}{l}} \sum_{j_{sa}=j_s}^{\binom{D-l}{l}} \frac{(2 \cdot n_i + j_{sa} - n_{ik} - j_s - j_{sa} - j_{sa}^{ik} - s - \mathbb{k} + 2)!}{(2 \cdot n_i + j_{sa} - n_{ik} - j_{sa} - n - j_{sa}^{ik} - \mathbb{k} - j_{sa}^s + 2)! \cdot (n - s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$



## DİZİN

## B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.1.1.1/3-4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.1.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.1.2.1/3-4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.1.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.1.3.1/3-4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.1.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.1.1.1/230-231

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.1.1.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.1.2.1/230-231

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.1.2.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.1.3.1/230-231

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.1.3.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.4.1.1/3-4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.4.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.4.2.1/3-4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.4.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.1.4.3.1/3-4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.1.4.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu



simetrisinin son durumunun bulunabileceği olaylara göre

- tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/233
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/190
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

- tek kalan simetrik olasılık, 2.3.3.1.1.1.2.1/233
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/190
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

- tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/233
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/190
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

- tek kalan simetrik olasılık, 2.3.3.1.1.1.4.1/3-4
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.4.1/190
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.4.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

- tek kalan simetrik olasılık, 2.3.3.1.1.6.2.1/3-4
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.2.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu

bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

- tek kalan simetrik olasılık, 2.3.3.1.1.6.3.1/3-4
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.3.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı

- tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/118
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/80-81
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı

- tek kalan simetrik olasılık, 2.3.3.1.1.1.2.1/118
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/80-81
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

- tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/118
- tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/80-81
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

- tek kalan simetrik olasılık, 2.3.3.1.2.1.1.1/4
- tek kalan düzgün simetrik olasılık, 2.3.3.2.2.1.1.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre



tek kalan simetrik olasılık,  
2.3.3.1.2.1.2.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.1.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.1.3.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.1.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.2.1.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.2.1.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.2.2.1/7-8

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.2.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.2.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.2.3.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.2.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.4.1.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.4.1.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.4.2.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.4.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.4.3.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.4.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.6.1.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.6.1.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.6.2.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.6.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre



tek kalan simetrik olasılık,  
2.3.3.1.2.6.3.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.6.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumda  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.7.1.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.7.1.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.7.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumda  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.2.7.2.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.2.7.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.2.7.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumda  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.3.2.7.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.3.2.7.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımlı durumda  
simetrinin ilk ve herhangi bir durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.3.2.7.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.3.2.7.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.3.2.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımlı durumda  
simetrinin ilk ve herhangi bir durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.3.1.2.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.3.1.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.3.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımlı durumda  
simetrinin ilk ve herhangi bir durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.3.1.3.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.3.1.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.3.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımlı durumda  
simetrinin ilk ve herhangi bir durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.3.2.1.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.3.2.1.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.3.2.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumda  
bağımsız simetrinin ilk ve herhangi bir  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.3.2.2.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.3.2.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.3.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumda  
bağımlı simetrinin ilk ve herhangi bir  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.3.2.3.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.3.2.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.3.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımlı durumda  
simetrinin herhangi iki durumuna bağlı



tek kalan simetrik olasılık,  
2.3.3.1.4.1.1.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.4.1.1.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.4.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrisinin herhangi iki durumuna bağlı

tek kalan simetrik olasılık,  
2.3.3.1.4.1.2.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.4.1.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.4.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin herhangi iki durumuna bağlı

tek kalan simetrik olasılık,  
2.3.3.1.4.1.3.1/4

tek kalan düzgün simetrik olasılık,  
2.3.3.2.4.1.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.4.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrisinin  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.4.1.1.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrisinin durumunun bulunabileceği  
olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.4.1.2.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin durumunun bulunabileceği  
olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.4.1.3.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrisinin ilk  
ve herhangi iki durumunun bulunabileceği  
olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.5.1.1.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.5.1.1.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.5.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrisinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.5.1.2.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.5.1.2.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.5.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.5.1.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.5.1.3.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.5.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrisinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.5.2.1.1/6

tek kalan düzgün simetrik olasılık,  
2.3.3.2.5.2.1.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.5.2.1.1/10

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrisinin ilk ve herhangi iki  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.5.2.2.1/6

tek kalan düzgün simetrik olasılık,  
2.3.3.2.5.2.2.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.5.2.2.1/10

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrisinin ilk ve herhangi iki  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.5.2.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.5.2.3.1/3-4



tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.1.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.1.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki

durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.1.1/4

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.2.1.1/6

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre



tek kalan simetrik olasılık,  
2.3.3.1.6.2.2.1/6

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.2.2.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumda  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.2.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.2.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumda  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.4.1.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.4.1.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.4.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumda  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.4.2.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.4.2.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.4.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumda  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.4.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.4.3.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.4.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumda  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.6.1.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.6.1.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.6.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumda  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.6.2.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.6.2.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.6.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumda  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.6.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.6.3.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.6.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumda  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.7.1.1/6

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.7.1.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumda  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.6.7.2.1/6

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.7.2.1/4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumda  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre



tek kalan simetrik olasılık,  
2.3.3.1.6.7.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.6.7.3.1/3-4

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.6.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrinin ilk  
herhangi bir ve son durumunun  
bulunabileceği olaylara göre herhangi bir  
ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.1.1.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.1.2.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.1.3.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız bağımlı durumlu  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.2.1.1/11

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.2.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.2.2.1/11

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.2.3.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.2.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.4.1.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.4.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımlı simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.4.2.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.4.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımlı simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.4.3.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.4.3.1/11

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.6.1.1/7

tek kalan düzgün olmayan simetrik  
olasılık, 2.3.3.3.9.6.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrinin ilk herhangi bir ve son



durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,  
2.3.3.1.9.6.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.2.1/11

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

tek kalan simetrik olasılık,  
2.3.3.1.9.6.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.3.1/11

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

tek kalan simetrik olasılık,  
2.3.3.1.9.7.1.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.1.1/11

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

tek kalan simetrik olasılık,  
2.3.3.1.9.7.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.2.1/11

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

tek kalan simetrik olasılık,  
2.3.3.1.9.7.3.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.7.1.1.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.7.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.7.1.2.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.7.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.7.1.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.7.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.7.2.1.1/7

tek kalan düzgün simetrik olasılık,  
2.3.3.2.7.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.7.2.2.1/7

tek kalan düzgün simetrik olasılık,  
2.3.3.2.7.2.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,  
2.3.3.1.7.2.3.1/5

tek kalan düzgün simetrik olasılık,  
2.3.3.2.7.2.3.1/3-4



tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.2.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumda simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.1.1/9



tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.1.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.2.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.3.1/10

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

tek kalan simetrik olasılık, 2.3.3.1.10.2.1.1/15

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.1.1/16

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

tek kalan simetrik olasılık, 2.3.3.1.10.2.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.2.3.1/9-10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.3.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.3.1/9



tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.3.1/16

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

tek kalan simetrik olasılık, 2.3.3.1.10.7.1.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.1.1/16

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

tek kalan simetrik olasılık, 2.3.3.1.10.7.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.2.1/16

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

tek kalan simetrik olasılık, 2.3.3.1.10.7.3.1/9-10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.3.1/10

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

tek kalan simetrik olasılık, 2.3.3.1.11.1.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.1.1/10-11

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

tek kalan simetrik olasılık, 2.3.3.1.11.1.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.2.1/10-11

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

tek kalan simetrik olasılık, 2.3.3.1.11.1.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.3.1/10-11

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

tek kalan simetrik olasılık, 2.3.3.1.11.2.1.1/17-18

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.1.1/17-18

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

tek kalan simetrik olasılık, 2.3.3.1.11.2.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.2.1/17-18

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

tek kalan simetrik olasılık, 2.3.3.1.11.2.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.3.1/10-11

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

tek kalan simetrik olasılık, 2.3.3.1.11.4.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.2.1/10



tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.1.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.3.1/10-11



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 dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılığı, tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz olasılıklardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılığı, 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 teorik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde diğer kaynak kullanılmamıştır.