

VDOİHİ

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

Cilt 2.3.2.3.7.1.1.365

İsmail YILMAZ



**Matematik / İstatistik / Olasılık**

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**VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık Cilt 2.3.2.3.7.1.1.365**

*İsmail YILMAZ*

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## **KÜTÜPHANE BİLGİLERİ**

**Yılmaz, İsmail.**

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*1. Bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık*

*Dili: Türkçe + Matematik Mantık*





Türkiye Cumhuriyeti Devleti  
Kuruluşunun  
100.Yılı Anısına



*K. Atatürk*



DÜZELTME

Bu cilt için

$$fz^{S_{j_s,j_{ik},j^{sa},j_i}}$$

simgesi yerine

$$fz^{S_{j_s,j_{ik},j^{sa},j_i}^{iso}}$$

simgesi olmalı.



## 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

Veri Değişkenleri Olasılık ve İhtimal Hesaplama İstatistiği (VDOİHİ) ile olasılık ve ihtimal yasa konumuna getirilmiştir.

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- ✓ Makinaların insan gibi düşünebilmesini, karar verebilmesini ve davranabilmesini sağlayacak gerçek yapay zekayla ilişkilendirilmiştir.
- ✓ Dillerin matematik yapısı olduğu gösterilmiştir.
- ✓ Tüm tabanlarda, tüm dağılım türlerinde ve istenildiğinde dağılım türü ve tabanı değiştirerek çalışabilecek elektronik teknolojinin temelidir.
- ✓ Teorik kabullerle genetikle ilişkilendirilmiştir.
- ✓ Bilgi merkezli değerlendirme yöntemidir.



*Sanırım bilgi ve teknolojideki kaderimiz veriyle ilişkilendirilmiş.*



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GÜLDÜNYA



## Simge ve Kısaltmalar

$n$ : olay sayısı

$n$ : bağımlı olay sayısı

$m$ : bağımsız olay sayısı

$l$ : bağımsız durum sayısı

$I$ : simetrimin bağımsız durum sayısı

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

$I$ : simetrimin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

$lk$ : simetrimin bağımlı durumları arasındaki bağımsız durumların sayısı

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

$D$ : bağımlı durum sayısı

$D_i$ : olayın durum sayısı

$s$ : simetrinin bağımlı durum sayısı

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

$m$ : olasılık

$M$ : olasılık dağılım sayısı

$U$ : uyum eşitliği

$u$ : uyum derecesi

$s_i$ : olasılık dağılımı

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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durumunun bulunabileceği olaylara göre ilk simetrik olasılık

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$fzS_{jik,j^{sa}}^{is}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin herhangi iki durumuna bağlı ilk simetrik olasılık

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$fzS_{js,jik,jsa,ji}^{is}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık



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$f_z S_{j_i}^{ISO}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği

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$f_z S_{j_i,0}^{ISO}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık

$f_z S_{j_i,D}^{ISO}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık

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

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

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durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık

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${}^0fz,0S_{js,jik,j^{sa},j_i,0}^{ISO}$ : 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 ilk düzgün olmayan simetrik olasılık

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



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

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

$fz \overset{ISO}{\Rightarrow}_{j_s, j_{ik}, j_i}$ : 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 ilk düzgün olmayan simetrik olasılık

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

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

$fz,0 \overset{ISO}{\Rightarrow}_{j_s, j_{ik}, j_i}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

herhangi bir ve son duruma bağlı ilk düzgün olmayan simetrik olasılık

$fz,0 \overset{ISO}{\Rightarrow}_{j_s, j_{ik}, j_i, 0}$ : 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 ilk düzgün olmayan simetrik olasılık

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

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

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göre herhangi bir ve son durumuna bağlı ilk düzgün olmayan simetrik olasılık

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

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herhangi iki ve son durumuna bağlı ilk düzgün olmayan simetrik olasılık

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

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

bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı ilk 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

büyükçe sıralama sayısı ile elde edilebilen kurallı tablolar kullanılmaktadır. Farklı dizilimsiz dağılımlarda durumların küçükten-büyükçe sıralama için verilen eşitliklerde kullanılan durum sayısının düzenlenmesiyle, büyükten-küçükçe sıralama durumlarının eşitlikleri elde edilebilir.

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

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



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

Farklı dizilimsiz dağılımlarda simetrinin durumlarının olasılık dağılımındaki 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 CHT adı verilen 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 dağılımlardaki sırasına göre verilen eşitliklerdeki toplam sınır değerleri, simetrinin küçükten-büyük sıralanan dağılımlarına göre verildiğinden bu dağılımlarda da aynı sıralama kullanılmaya devam edilecektir. Bağımlı olasılıklı farklı dizilimsiz dağılımlarda olduğu gibi bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda da aynı eşitliklerde simetrinin durum sayıları düzenlenerek büyükten-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 durumu bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılığın eşitlikleri verilmektedir.



**SİMETRİDEN SEÇİLEN DÖRT DURUMA GÖRE İLK DÜZDÜN OLMAYAN SİMETRİK OLASILIK**

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik}, j_{sa}}^{(i)} &= \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\ &\sum_{k=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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

~~$$\sum_{k=1}^K (j_s = j_{ik} - j_{sa})$$~~

$$\sum_{j_ik=-n}^n+j_{sa}^{ik}-j_{sa}^{ik-1}=j_i+j_{sa}-j_{sa-1}+n-D$$

$$\sum_{i=n+\mathbb{K}}^n \sum_{k=j_s+1}^{i-j_s+1} n_{ik} = n_{i_s+j_s-j_{k-1}} = \sum_{k=j_s+1}^{i-j_s+1} n_{ik} = n_{i_s+j_s-j_{k-1}}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_{sa} + j_{sa} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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



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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_s - j_{sa} - j_{ik} + 1)} \sum_{(j_i + j_{sa} - j_{ik} - \mathbb{k}_1)}^n \sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{(j_{sa} = l_{ik} + n - D - j_{sa}^{ik})} \sum_{j_i = l_i - D}^{(j_i + j_{sa} - j_{ik} - \mathbb{k}_1)} \sum_{n_i = n - (n_{is} = n + \mathbb{k}_1 - 1)}^{(n_{is} = n + \mathbb{k}_1 - 1)} \sum_{n_{ik} = n - j_{ik} + 1}^{(n_{ik} = n - j_{ik} + 1)} \sum_{(n_{sa} = n - \mathbb{k}_3 - j_{sa} + 1)}^{(n_{sa} = n - \mathbb{k}_3 - j_{sa} + 1)} \sum_{n_s = n - j_i + 1}^{(n_s = n - j_i + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1 \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{( )} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

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

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

$$D \geq n < n \wedge \mathbb{k} > \mathbb{k}_1 \wedge$$

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

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



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



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_i+\mathbf{n}+j_{sa}-D-s-1)} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa})!}{(j^{sa} + l_i + j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D + l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{n} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$



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

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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

$$\sum_{j_{ik}} \sum_{a+j_{sa}^{ik}-j_{sa}} (j_{sa}^{ik} - j_{sa}) \sum_{(n+j_{sa}-s)} \sum_{(j_{sa}^{ik} - j_{sa})} \sum_{(j_{sa}^{ik} - j_{sa})} \sum_{(j_{sa}^{ik} - j_{sa})}$$

$$\sum_{(n_i=j+1)} \sum_{(n_s=n+k-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \sum_{n_s=n_{sa}+j^{sa}-j_t-k_3}$$

$$\frac{(n_i + 2 \cdot j_{sa} + j_{sa}^s + j_{sa}^{jk} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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



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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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



$$\begin{aligned}
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{\binom{(\quad)}{}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{(\quad)}{}} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{lk} - j_{sa}}^{\binom{(\quad)}{}} \sum_{(j^{sa} = \mathbf{l}_i + \mathbf{n} + j_{sa} - D - s)}^{\binom{(\quad)}{}} \sum_{j_{ik} = j^{sa} + s - j_{sa}}^{\binom{(\quad)}{}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^{\binom{(\quad)}{}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s)}^{\binom{(\quad)}{}} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + j_{ik} - j_{sa} - \mathbb{k}_1 + 1}^{\binom{(\quad)}{}} \\
& \sum_{(n_{ik} + j_{ik} - j^{sa} - n_{sa} + j^{sa} - j_i - \mathbb{k}_1)}^{\binom{(\quad)}{}} \sum_{(n_{sa} - \mathbb{k}_3 - j^{sa} - n_s + j_i + 1)}^{\binom{(\quad)}{}} \\
& \frac{(n_{is} - \mathbf{n} - \mathbb{k}_1 - 1)!}{(j_s - 2)! \cdot (j_s - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - \mathbf{n} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (\mathbf{n} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(\mathbf{l}_i + j_{sa} - \mathbf{l}_{sa} - s)!}{(j^{sa} + \mathbf{l}_i - j_i - \mathbf{l}_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{\binom{(\quad)}{}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{(\quad)}{}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j_{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(j_s - j_i)!}{(j_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > D - n + 1 \wedge \\
& 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa}^{ik} \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_i - j_{sa}^{ik} + j_{sa} = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} = l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D \geq n < n \wedge l = 0 > 0 \wedge \\
& j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq j_{sa}^{ik} = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$\begin{aligned}
fz S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_s+n+j_{sa}-D-1)}^{(l_i+n+j_{sa}-D-s-1)} \sum_{j_i=l_i+n-D}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$

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

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

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - 1)!}{(j^{sa} + l_i + j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=j^{sa}+s-j_{sa}}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=j^{sa}+s-j_{sa}}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik} - j_{sa}^{ik} + 1, j_i} &= \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\ &\sum_{j_{ik} = \mathbf{l}_{sa} + j_{sa}^{ik} - s - 1}^{n + j_{sa}^{ik} - s - 1} \sum_{j_{sa} = j_{sa}^{ik} - D - j_{sa}}^{(\cdot)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)} \sum_{j_i = \mathbf{l}_i + \mathbf{n} - D}^n \\ &\sum_{n_i = \mathbf{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^n (j_s = j_{ik} - j_{sa} - s) \cdot \\
& \sum_{k=l_i + \mathbf{n} + j_{sa} - s}^{n + j_{sa} - s} (j^{sa} = j_i + j_{sa} - j_{sa}^{ik}) \cdot l_i - j_i - s - j_{sa} \\
& \sum_{n_{ik} = \mathbb{k}_1}^n (n_{is} = \mathbf{n} + \mathbb{k}_1 - j_s + 1) \cdot \sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \\
& \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^n (n_{is} = \mathbf{n} + \mathbb{k}_2 - j_s + 1) \cdot \sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^n (n_{sa} + j^{sa} - j_i - \mathbb{k}_3) \cdot \sum_{n_s = \mathbf{n} - j_i + 1}^n \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



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

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

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

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

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n + j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot$$

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

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s = D - \mathbf{n} + \mathbf{l}_i \wedge$$

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
&\sum_{j_{ik} = l_i + n + j_{sa}^{lk} - D - s - 1}^{l_i + n + j_{sa}^{lk} - D - s - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})}^{(\quad)} \sum_{j_i = l_i + n}^n \\
&\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
&\frac{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2 - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_3)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot \\
&\frac{(n_{ik} - n_{sa} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa} - n_s - 1)!}{(j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
&\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
&\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
&\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
&\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
&\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
&\sum_{j_{ik} = l_i + n + j_{sa}^{lk} - D - s}^{n + j_{sa}^{lk} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})}^{(\quad)} \sum_{j_i = j^{sa} + s - j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{\mathbf{n}+j_{sa}^{lk}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{\binom{()}{j_i=j^{sa}+s-j_{sa}}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{n_s=\mathbf{n}_{sa}+j^{sa}-j_i-\mathbb{k}_3}}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

$$\frac{(D - \mathbf{l})!}{(D + j_i - \mathbf{n} - l_i)!(\mathbf{n} - j_i)!}.$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=\mathbf{l}_s+\mathbf{n}+j_{sa}^{ik}-D-1}^{\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=\mathbf{l}_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

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



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - j_i - s)! \cdot (j_i + j^{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - \mathbf{n} - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{\binom{D - \mathbf{n} - l_i}{j_s = j_{ik} - j_{sa}^{ik} + 1}} \sum_{j_i = j_{sa}^{ik} - s}^{\binom{j_{sa}^{ik} - s}{j_i = j_{sa}^{ik} - s - j_{sa}}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
\end{aligned}$$







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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_i + n - D - s)} \sum_{(j_s = l_{sa} + 1, \dots, D - j_{sa} + 1)}^{(l_i + n - D - s)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j_{sa} = j_s + j_{sa}^{ik} - 1)} \sum_{(j_i = l_i + 1, \dots, D - j_{sa} + 1)}^{(j_{sa} = j_s + j_{sa}^{ik} - 1)}$$

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

$$\sum_{(n_{sa} = n_{ik} + j_{ik} - \mathbb{k}_2 - 1)}^{(n_{sa} + j_{sa} - j_i - \mathbb{k}_3)} \sum_{n_s = n - j_i + 1}^{(n_{sa} + j_{sa} - j_i - \mathbb{k}_3)}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

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

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot$$

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



$$\begin{aligned}
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_{k3}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{n_s=n-j_i}^{n_{sa}+j_{sa}-j_i-l_{k3}} \\
& \frac{(n_i-n_{ik}-l_{k1}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k2}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-l_{k2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$







$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!} \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - 1)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_i+j_{sa}-j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{sa}^{ik}, j_i} = \sum_{k=1}^{j_s+n-D-s} \sum_{(j_s=l_s+n-D)}^{(j_s+l_s+n-D)} \sum_{j_i=l_i+n-D}^{(j_i+l_i+n-D)} \sum_{j_{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{(j_{sa}=n+\mathbb{k}_3-j^{sa}+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \frac{(n-s+1)!}{(j_s = l_i + l_{sa} - s + 1)!} \cdot \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j^{sa}=j_{ik}+j_{sa}-l_{sa}^{ik})} \frac{(j^{sa}-j_{ik}-j_{sa}+l_{sa}^{ik})!}{(j_i=j^{sa}+s-j_{sa})!} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \frac{(n_i - j_i - 1)!}{(j_s = \mathbf{n} + \mathbb{k}_1 - j_s)!} \cdot \sum_{n_{is}=\mathbf{n}+j_s-n_{ik}-\mathbb{k}_1}^{(n_i-j_i-1)!} \frac{(n_{is} - j_{is} - 1)!}{(n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n-s+1)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n-s+1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(n-s+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-1)}^{(n-s+1)} \sum_{n_s=n_{sa}+j_{sa}-j_{sa}^{ik}}^{(n-s+1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{ik} - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

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

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

$$D \geq n < n \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \wedge$$

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

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 1 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n-s+1)}$$



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

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

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{()}{j^{sa}=j_i+j_{sa}-s}} \sum_{j_i=l_i+\mathbf{n}-D}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{n_{sa}=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik} - j_{sa}^{ik} + 1, j_i} &= \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\ &\sum_{j_{ik} = \dots}^{j_{sa} + j_{sa}^{ik}} \sum_{(j_{sa} = l_i + n + j_{sa} - D - s)}^{(j_{sa} = s)} \sum_{j_i = j^{sa} + s - j_{sa}} \\ &\sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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

$$\sum_{s=1}^{\mathbf{n} - j_{ik} - j_{sa}^{ik}} (j_s = j_{ik} - j_{sa}^{ik})$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_s - j_{sa}^{ik} - (j^{sa} = l_i + j_{sa}^{ik} - D - s)} (j_s = j_{ik} - j_{sa}^{ik} - s)$$

$$\sum_{n + \mathbb{k}_1}^n (n_{is} = n + j_s + 1) \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{j_s + 1}$$

$$\sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} (n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3)$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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







$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{(\quad)}{(j_s = j_{ik} - j_{sa}^{ik} + 1)}} \sum_{j_{ik} = j_{sa}^{sa} + j_{sa}^{lk} - j_{sa}}^{(\mathbf{n} + j_{sa} - s)} \sum_{j_{ik} = j_{sa}^{sa} + s - j_{sa}}^{(\mathbf{n} - j_s + 1)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{(n_i - j_s + 1)} \sum_{(n_{ia} = n_{ik} + j_{sa}^{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \sum_{j_{ik} = j_{sa}^{sa} + s - j_{sa} - \mathbb{k}_3}^{(n_i - j_s + 1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f_{zS} S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 &\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s - 1}^{l_i + n + j_{sa}^{ik} - D - s - 1} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{(n + j_{sa} - s)} \\
 &\sum_{n_i = n + k_1}^n \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \\
 &\sum_{(n_{ik} + j_{ik} - j^{sa} - n_{is} + j^{sa} - j_i - k_3)}^{(n_{ik} + j_{ik} - j^{sa} - n_{is} + j^{sa} - j_i - k_3)} \sum_{(n_{sa} = n + k_3 - j^{sa} + 1)}^{(n_{sa} = n + k_3 - j^{sa} + 1)} \sum_{n_s = n - j_i + j^{sa} - j_{ik} - k_2}^{n_s = n - j_i + j^{sa} - j_{ik} - k_2} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 &\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{(n + j_{sa} - s)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
\end{aligned}$$

$$\sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{\mathbf{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

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

$$\sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=\mathbf{n}_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

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

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

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



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i - 1)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_i+l_{sa}-j_{sa}^{ik}-D-s}^{j_{ik}=l_i+l_{sa}-j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{s=1}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s=j_{ik}-j_{sa}^{ik}+1} (j_s=j_{ik}-j_{sa}^{ik}) \cdot \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} (j^{sa}=j_{ik}-j_{sa}^{ik}) \cdot j_i=j_{ik}-j_{sa}^{ik}+s-j_{sa} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-s}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s=j_{ik}-j_{sa}^{ik}+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$l_i \wedge l_s > D - n + 1 \wedge$$

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

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

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



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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_{sa}, j_i}^S = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{j_{ik}=j_s + j_{sa}^{ik} - 1}^{(n + j_{sa} - D - s)} \sum_{n_i=n+\mathbb{k}}^{(n_i - \mathbb{k}_1 + 1)} \sum_{n_{is}=n+\mathbb{k}}^{(n_{is} - \mathbb{k}_1 + 1)} \sum_{n_{ik}=n_{is} + \mathbb{k} - j_s + 1}^{(n_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{n_{sa}=n_{ik} - j_{sa} - \mathbb{k}_2}^{(n_{sa} + j_{sa} - j_i - \mathbb{k}_3)} \sum_{n_s=n-j_i+1}^{(n_{sa} - \mathbb{k}_3 - j_{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$



$$\begin{aligned}
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_{k3}-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{n_s=n-j_i}^{n_{sa}+j_{ik}-j_{ik}-l_{k3}} \\
& \frac{(n_i-n_{ik}-l_{k1}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}-n_s-l_{k2}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-l_{k2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D + j_i - \mathbf{n} - l_s)(\mathbf{n} - j_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_3)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_3)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{ik}, j_{sa}}^{(i)} &= \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=l_{ik}-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^n \sum_{n_i=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\quad \sum_{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\quad \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\quad \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(j_s - j_i - j_{sa}^{ik} + 1)} \sum_{s=1}^{(j_i + j_{sa} - s)} \sum_{i=1}^{(j_{ik} + \mathbf{n} + s - D - j_{sa})} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{j_i=j_{sa}+j_{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}}^{(j_i+j_{sa}-s)} \\
& \sum_{n_i=\mathbb{k}_1}^{(j_i+j_{sa}-s)} \sum_{n_s=\mathbb{k}_2}^{(j_i+j_{sa}-s)} \sum_{n_{ik}=\mathbb{k}_3}^{(j_i+j_{sa}-s)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot
\end{aligned}$$

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

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

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

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

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

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



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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



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

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

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

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

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - j_i - \mathbb{k}_1 - j_{sa} - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_i - j_{ik} - 3 \cdot s)!}{(l_s - 2)!}$$

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

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

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

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

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

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

$$D \geq n < n \wedge \mathbb{k} > \mathbb{k}_1 \wedge$$

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

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f^z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_{k_2}+l_{k_3}-j_{ik}-1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_{k_3}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k_2}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_i-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik} - j_{sa}^{ik} + 1, j_i} &= \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \\ &\sum_{j_{ik} = j_{ik} + \mathbf{n} - D}^{+\mathbf{n} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j_{sa} = \mathbf{l}_{sa} + \mathbf{n} - D)}^{+\mathbf{n} + j_{sa} - s} \sum_{j_i = j^{sa} + s - j_{sa}} \\ &\sum_{n_i = \mathbf{n} + \mathbb{K}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{K}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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

~~$$\sum_{s=1}^n (j_s = j_{ik} - j_{sa}^{ik})$$~~

$$\sum_{j_i=0}^{n+j_{sa}^{ik}-s} \dots$$

$$\sum_{i_k = n + \mathbb{k}_k}^n (n_{i_k} + 1) n_{i_k + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)} \sum_{(n_s=n-j_i+1)} n_{sa}+j^{sa}-j_i-\mathbb{k}_3$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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



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

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

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots)}$$

$$\sum_{j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{(j_{sa}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{l_s}=\mathbf{n}+\mathbb{k}-j_s, \dots)}^{(n_i-j_s+1)} \sum_{(n_{l_i}=\mathbf{n}+\mathbb{k}-j_s-j_{ik}-\mathbb{k}_1)}^{(\quad)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$







$$\begin{aligned}
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=j_i+1)}^{(n_{sa}+j^{sa}-j_i-1)} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\sum} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{ik}\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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

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

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j^{sa} - l_{ik} - j^{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j^{sa} - j_{ik} - j^{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$



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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

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

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

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

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

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

$$\sum_{i=n+l_k}^{(n_i-l_i-1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-l_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}^{(n_i-l_i-1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_{k3}}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k1} - l_{k2} - l_{k3})!}{(n_i - n - l_{k1} - l_{k2} - l_{k3})!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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



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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{\mathbf{l}_{sa} + j_{sa}^{ik} - D - j_{sa}} \sum_{(j_s = \mathbf{l}_s - D)}^{\mathbf{l}_{sa} + j_{sa}^{ik} - D - j_{sa}} \\ &\sum_{j_i = j_s + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} - j_s + s - j_{sa}}^{(n + j_{sa})} \sum_{(n_i - j_s + 1)}^{n_i + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{(n_{ik} + j_{sa} - \mathbb{k}_2)}^{(n_{ik} + j_{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = n + \mathbb{k}_3 - j_{sa} + 1)}^{n_{sa} + j_{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \\ &\frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j_{sa} - \mathbf{l}_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_{sa}^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2}^{n_{is}+j_s-\mathbb{k}_1} \sum_{n_{sa}=n+\mathbb{k}_3}^{n_{ik}+j_{ik}-j_{sa}^{sa}-1} \sum_{n_{sa}+j_{sa}-j_i-1}^{n_{sa}+j_{sa}-j_i-1} \\
& \frac{(n_{ik}+j_{ik}-j_{sa}^{sa}-1)! \cdot (n_{sa}+j_{sa}-j_i-1)!}{(n_{sa}+\mathbb{k}_3-j_s-1)! \cdot (n_{sa}+j_{sa}-j_i-1)!} \cdot \\
& \frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{sa}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{sa}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\cdot)} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(j_s - 1)!}{(j_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - \mathbf{l}_i)!}{(D - j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge \\
& 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa}^{ik} + j_{sa} \leq j_i \leq \mathbf{n} \wedge \\
& \mathbf{l}_i - j_{sa}^{ik} + j_{sa} = \mathbf{l}_s \wedge \mathbf{l}_s + j_{sa}^{ik} - j_{sa} > \mathbf{l}_i \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge \\
& D \geq \mathbf{n} < n \wedge I = j_{sa}^{ik} - j_{sa} > 0 \wedge \\
& j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq j_{sa}^{ik} = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$f^z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_i+j_{sa}-s)}^{(j_i+j_{sa}-s)} \sum_{j_i=\mathbf{l}_i+\mathbf{n}-D}^{\mathbf{n}}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j^{sa}=j_i+j_{sa}-s)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j_i + l_i - j_i - l_s - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\infty} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\cdot)} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} S_{i_s, j_s} \cdot j_i &= \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \\ &\sum_{j_{ik} = l_{ik} + \mathbf{n} - D}^{l_i + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(l_i + \mathbf{n} + j_{sa} - D - s - 1)} \sum_{j_i = l_i + \mathbf{n} - D}^{\mathbf{n}} \\ &\sum_{n_i = \mathbf{n} + \mathbb{K}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{K}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!} \cdot \\
& \frac{(n - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}} \sum_{j_i=j^{sa}+s-j_{sa}}^{j_i=j^{sa}+s-j_{sa}} \sum_{j_{ik}=l_{ik}+n-l_{sa}-j^{sa}-j_s}^{j_{ik}=l_{ik}+n-l_{sa}-j^{sa}-j_s} \sum_{j_{is}=n+l_{ik}-j_s+1}^{j_{is}=n+l_{ik}-j_s+1} \sum_{n_{ik}=n+l_{ik}+l_{k_2}+l_{k_3}-j_{ik}+1}^{n_{ik}=n+l_{ik}+l_{k_2}+l_{k_3}-j_{ik}+1} \sum_{n_{is}=n+l_{ik}-j_s+1}^{n_{is}=n+l_{ik}-j_s+1} \sum_{n_{sa}=n+l_{k_3}-j^{sa}+1}^{n_{sa}=n+l_{k_3}-j^{sa}+1} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$











$$\begin{aligned}
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + \dots)}^{(\quad)} \\
& \sum_{j_{ik} = l_s + \mathbf{n} + j_{sa}^{ik} - D - 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_i + \mathbf{n} + j_{sa} - D)}^{(\mathbf{n} + j_{sa} - s)} \sum_{j_{sa} = j_{sa}^{ik} - j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_{sa} = j_i - \mathbb{k}_3}^{n_{sa} = j_i - \mathbb{k}_3} \\
& \sum_{(n_s = \mathbf{n} + \mathbb{k}_3 - j^{sa} - 1)}^{(n_s = \mathbf{n} + \mathbb{k}_3 - j^{sa} - 1)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_s = \mathbf{n} - j_i + 1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{2}} \\
& \sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}}^{\binom{n+j_{sa}-s}{2}} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{\binom{n+j_{sa}-s}{2}} \sum_{j_i=j_{sa}+s-j_{sa}}^{\binom{n+j_{sa}-s}{2}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{\binom{n_i-j_s+1}{2}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{\binom{n_i-j_s+1}{2}} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{\binom{n_i-j_s+1}{2}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_{sa} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 2 - n + 1 \wedge$$

$$2 < j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{lk} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

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

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

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

$$j_{sa}^{lk} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{lk}, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{2}}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_i-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=1}^s \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{\sum} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{\mathbf{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n - 1)!}{(n_s + n - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j^{sa} - l_{ik} - j^{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j^{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j^{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i - n_s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{ik} - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = l_i + j_{sa}^{ik} - D - s}^{j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)} \sum_{j_i = j^{sa} + s - j_{sa}}^{(\quad)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f z^{n-j_{ik}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-j_{sa}}^{j_{ik}=j_s+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=l_{sa}+n-D}^{j_{sa}=l_{sa}+n-D} \sum_{j_i=l_i+n-D}^{j_i=l_i+n-D} \\ & \sum_{j_s=1}^{j_s+1} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}=n+\mathbb{k}-j_s+1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ & \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{j_s=l_i+\mathbf{n}-D-s+1}^{(n-s-1)} \sum_{j_{ik}=j_s+l_{ik}-1}^{(j_s+l_{ik}-1)} \sum_{j_{sa}=j_{sa}^{ik}-1}^{(j_s+l_{sa}-s)} \sum_{j_i=j_i}^n \sum_{n_{is}=n+l_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+l_{k_2}+l_{k_3}-j_{ik}+1}^{n_{ik}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n+l_{k_3}-j^{sa}+1}^{(n_{sa}+j^{sa}-l_{k_2})} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



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

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

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

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

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

$$\sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_3)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}$$

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

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

$$D \geq n \wedge l_s > D - 1 \wedge l_i > D - 1$$

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_Z \mathcal{S}_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s = l_s + \mathbf{n} - D)}^{(l_i + \mathbf{n} - D - s)} \\
 &\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(n + j_{sa} - s)} \sum_{j_i = l_i + \mathbf{n} - D}^n \\
 &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_1 - j_{ik} + 1)}^{(n_{is} + j_{ik} - \mathbb{k}_1)} \\
 &\sum_{(n_{ik} + j_{ik} - \mathbb{k}_2 - \mathbb{k}_1)}^{(n_{ik} + j_{ik} - \mathbb{k}_2)} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(n_{sa} + j^{sa} - \mathbb{k}_3)} \\
 &\sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(n_{sa} + j^{sa} - \mathbb{k}_3)} \sum_{(j_i = \mathbf{n} - j_i + 1)}^{(n_{sa} + j^{sa} - \mathbb{k}_3)} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 &\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 &\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(n-s+1)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l+k_2+k_3-j_i-1}^{n_{is}+j_s-j_{ik}-k_1} \\
& \sum_{(n_{sa}=n+l+k_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_s-n_{sa}-j^{sa}-k_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot \\
& \frac{(l_s-2)!}{(l_s+j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(D-j_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)}{(D-j_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3-j_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^n$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + \mathbf{n} - D)}$$

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

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot$$

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

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

$$\frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!} \cdot$$

$$\sum_{j_s=1}^{n_{sa}-s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=n_{sa}+j_{sa}^{ik}-j_s}^{n_{sa}-s} \sum_{j_i=n+j_{sa}-D-s}^{n+j_{sa}-D-s} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

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

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

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



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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{j_i=j_{sa}^{ik}+s-j_{sa}}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_s=j_{sa}^{ik}-j_{sa}+1}^{j_{ik}-j_{sa}^{ik}+1} \frac{(j_{ik}-j_{sa}^{ik}+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \\ & \sum_{j_{ik}=n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{j_i=j_{sa}^{ik}+s-j_{sa}}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_s=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \frac{(n_i-j_s)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\ & \sum_{j_{ik}=n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{j_i=j_{sa}^{ik}+s-j_{sa}}^{j_{ik}-j_{sa}^{ik}+1} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_3} \frac{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \\ & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \\ & \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \frac{(\mathbf{l}_s-2)!}{(\mathbf{l}_s-j_s)! \cdot (j_s-2)!} \end{aligned}$$



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

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

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

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{\substack{(\cdot) \\ j_{sa}=j_{sa}+j_{sa}^{ik}}} \Gamma_{\Delta_{\text{max}}-j_{sa}}$$

~~$$\sum_{n_i=\mathbf{n}+\mathbb{I}_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_i-j_{ik}-\mathbb{I}_{k_1}}^{n_i-j_{ik}-\mathbb{I}_{k_1}}$$~~

$$\sum_{(n_{sa}=n_{ik}+j, \dots, j_{sa}-\mathbb{k}_2)}^{(\cdot)} \dots \sum_{n_{sa}+j_{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot i_i + j_{sa}^s + j_{ik}^k - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - i_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(m - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

$$D \geq n \wedge l_s > D - \lfloor \frac{n}{2} \rfloor + 1 \wedge$$

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_Z \mathcal{S}_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s = l_s + \mathbf{n} - D)}^{(l_i + \mathbf{n} - D - s)} \\
 &\sum_{j_{ik} = l_i + \mathbf{n} + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \sum_{j_i = j^{sa} + s - j_s}^{( )} \\
 &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_{ik} - \mathbb{k}_1}^{n_{is} + j_{ik} - \mathbb{k}_1} \sum_{j_{ik} = j_{ik} + 1}^{( )} \\
 &\sum_{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} - \mathbb{k}_3)}^{(n_{sa} + j^{sa} - n_s - \mathbb{k}_3)} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 &\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(n-s+1)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{n+j_{sa}^{lk}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_{k_2}+l_{k_3}-j_i}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_{k_3}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \sum_{(n_s=j_i+1)}^{(n_{sa}+j_{sa}-j_i-l_{k_1})} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-l_{k_2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{lk}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{lk}+1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_s\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_{sa}+\mathbf{n}+s-D-j_{sa}}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n - 1)!}{(n_s + n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{ik}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\infty} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \cdot \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\cdot)} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{(\cdot)} \sum_{j_i = l_{sa} + n + s - D - j_{sa}}^n \cdot \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \cdot \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \cdot \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f^z \mathcal{S}_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + \mathbf{n} - D)} \\ &\sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{j_{ik} + j_{sa} - s} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)} \sum_{j_i = j^{sa} + s - j_{sa}} \\ &\sum_{n_i = \mathbf{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{sa} + j_{sa} - j_i - \mathbb{k}_2} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j_{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

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

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

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

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

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

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

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

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_k - l_k - l_k)!}{(n_i - n - l_k - l_k - l_k)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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



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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_{sa}, j_i}^S = \sum_{k=1}^{n-j_{sa}^{ik}+1} \sum_{(j_s = \mathbf{n}-D)}^{n-D} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D}^{n+j_{sa}^{ik}-s} \sum_{j_{ik}=j_{sa}-j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{j_{ik}=j_{sa}-j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{n_i=n+\mathbb{k}}^{(n_i-1)} \sum_{(n_{is}+n+\mathbb{k}-j_s+1)}^{(n_i-1)} \sum_{(n_{ik}+n-j_{sa}-\mathbb{k}_2)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \sum_{(n_{sa}-n-\mathbb{k}_3-j_{sa}+1)}^{n_s=n-j_i+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{D}{j_i}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_i}} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{D}{j_i}} \sum_{j_{ik}=j_{sa}+s-j_{sa}}^{\binom{D}{j_i}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{sa}-\mathbb{k}_1}^{\binom{D}{j_i}} \\
& \sum_{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2) \leq n_{is}}^{\binom{D}{j_i}} \sum_{(j_{ik}-j_{sa}-\mathbb{k}_3)}^{\binom{D}{j_i}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



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

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

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

$$\sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{n_s=n-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

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

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

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

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

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



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(j_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

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

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

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

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

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

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

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

$$\frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_s)(n - j_i)!}.$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

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

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

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

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



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(\cdot)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\cdot)} \sum_{j_i=l_{ik}+n+s-D-j_{sa}^{ik}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\cdot)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$



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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{(j_s=\mathbf{l}_s+n-D)}^{j_{sa}-s} \\ &\quad \sum_{(j_{sa}=l_{ik}+n_{is}-D-j_{sa}^{ik})}^{j_{sa}+j_{sa}^{ik}-1} \sum_{j_i=j^{sa}+s-j_{sa}}^{j_s+1} \\ &\quad \sum_{n_i=n+\mathbb{k}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\quad \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\quad \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\quad \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(j_s - j_{ik} - j_{sa}^{ik} + 1)} \sum_{i=1}^{(n + j_{sa} - j_s - D - j_{sa} - j_i - j_{sa} + s - j_{sa})} \sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{(j_{sa} - j_{ik} - j_{sa} - D - j_{sa} - j_i - j_{sa} + s - j_{sa})} \\
& \sum_{n_i = n + \mathbb{k}_1}^{(n + j_{sa} - j_s - D - j_{sa} - j_i - j_{sa} + s - j_{sa})} \sum_{n_{ik} = n + \mathbb{k}_1 - j_s}^{(n + j_{sa} - j_s - D - j_{sa} - j_i - j_{sa} + s - j_{sa})} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n + j_{sa} - j_s - D - j_{sa} - j_i - j_{sa} + s - j_{sa})} \\
& \sum_{n_s = n_{sa} + j_{sa} - j_i - \mathbb{k}_3}^{(n + j_{sa} - j_s - D - j_{sa} - j_i - j_{sa} + s - j_{sa})} \sum_{n_s = n_{sa} + j_{sa} - j_i - \mathbb{k}_3}^{(n + j_{sa} - j_s - D - j_{sa} - j_i - j_{sa} + s - j_{sa})} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

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

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

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

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

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

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



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-1)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1}$$

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

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

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

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

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



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

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

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

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

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!}$$

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

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

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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



$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_2+l_3-j_i}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_k+l_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k2})} \sum_{(n_{sa}+j_{sa}-j_i-l_{k1})}^{(n_{sa}+j_{sa}-j_i-l_{k1})} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k2}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-l_{k2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
\end{aligned}$$

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

$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_2+l_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - j_s^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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

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

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - l_s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j^{sa}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$



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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}, j_{sa}, j_i}^{j_{ik}-j_{sa}^{ik}+1} &= \sum_{k=1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{j_s+l_s+n-D} \\ &\sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{j_s+l_s+n-D} \sum_{(j_s=l_{sa}+n-D)}^{j_s+l_s+n-D} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n_i=j_i+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{j_s+1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(j_{ik} - l_{sa}^{ik} + 1)} \frac{(j_{ik} - l_{sa}^{ik} + 1)!}{(j_s - l_s + n - j_{ik} - l_{sa}^{ik} + 1)!} \cdot \\
& \sum_{k=j^{sa} + j_{sa}^{lk} - l_i - s}^{(j^{sa} - l_i - s)} \frac{(j^{sa} - l_i - s)!}{(j^{sa} + l_i - j_i - l_{sa} - D - s)! \cdot (j_i - j_s - j_{sa} - l_i - s)!} \cdot \\
& \sum_{k=1}^n \frac{(n - j_s + 1)!}{(n_{is} + j_s - j_{ik} - k_1)!} \cdot \sum_{k=1}^n \frac{(n_{is} + j_s - j_{ik} - k_1)!}{(n_{ik} - n_{sa} - k_2 - 1)!} \cdot \sum_{k=1}^n \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} + j^{sa} - j_i - k_3)!} \cdot \\
& \sum_{k=1}^n \frac{(n_{sa} + j^{sa} - j_i - k_3)!}{(n_{sa} - n_s - 1)!} \cdot \sum_{k=1}^n \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$



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

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

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

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

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

$$\sum_{(n_{sa} = n_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \sum_{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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

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

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

$$\sum_{(j^{sa}=n-j_i+1)}^{(j^{sa}=n-j_i+1)} \sum_{(j^{sa}=n-j_i+1)}^{(j^{sa}=n-j_i+1)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_2+l_3-j_i}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_k+l_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \sum_{(n_s=j_i+1)}^{(n_{sa}+j_{sa}-j_i-l_{k_1})} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-l_{k_2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\sum} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)!}{(D + j_i - n - l_i)(n - j_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$s: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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

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

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - j_s^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_s + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

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

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

$$\sum_{n_i = \mathbf{n} + \mathbb{K}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{K}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{K}_3}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!}.$$



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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

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

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

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

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

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

$$\sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}}^{(j^{sa}=j_i+j_{sa}-s)} \sum_{j_t=l_i+n-D}^n$$

$$\sum_{l_i=n+\mathbb{k}_1}^n \sum_{(n_{is}=n+\mathbb{k}_1-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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



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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \frac{(j_{ik}-j_{sa}^{ik}+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ & \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\ & \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\ & \frac{(\mathbf{l}_s-2)!}{(\mathbf{l}_s-j_s)! \cdot (j_s-2)!} \cdot \end{aligned}$$



$$j_{sq} = j_{sq}^i - 1 \wedge j_{sq}^{ik} < j_{sq} - 1 \wedge j_{sq}^s < j_{sq}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-1)}^{(n+j_{sa}-s)} \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_{sa}=l_i+n+j_{sa}-j_{ik})}^{(n+j_{sa}-s)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n_{ik}-j_{sa}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j_i=n+\mathbb{k}_3-j_i-1)}^{(j_i=n+\mathbb{k}_3-j_i-1)} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - n_{is} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2}-j^{sa}-j_i-l_{k_3})}^{(n_{sa}=n+l_{k_3}-j^{sa}-1)} \sum_{n_s=n-j_i-}^{(n_{sa}-n_{is}-1)!} \\
& \frac{(j_s-2)! \cdot (n_i-j_s+1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
& \frac{(n_{ik}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-j_{ik}-l_{k_1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
\end{aligned}$$



$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}$$

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

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_s=n_{sa}+j_{sa}-j_i-\mathbb{k}_3)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(l_s - j_s)! \cdot (j_s - 2)!}{(D - l_i)!} \cdot \frac{1}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

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

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

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

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

$$D \geq n < n \wedge l_i = 0 > 0 \wedge$$

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_2, j_{sa}^{ik}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s > n = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

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



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i + j^{sa} - 1)! \cdot (n_{sa} + j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{n+j_{sa}^{ik}-s} \sum_{(n+j_{sa}-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - j_s^{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} + j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

$$\frac{(D - \mathbf{l})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

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

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

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

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



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=l_{sa}+\mathbf{n}+s-D-j_{sa}}^{\binom{()}{j^{sa}=j_i+j_{sa}-s}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}} \sum_{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \\
& \frac{1}{(\mathbf{n}+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$S_{j^{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{j_{ik} = l_{ik} + n - D}^{s + j_{sa}^{ik} - j_{sa}} \sum_{(j_{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{(n - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$



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

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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

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

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\mathbf{n}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\mathbf{n}}$$

$$\sum_{j_s=j_{sa}+j_{sa}^{ik}-j_{sa}^{ik}+j_{sa}-s}^{+j_{sa}-s} \sum_{j_s=l_{sa}+\mathbf{n}-D}^{j_s=l_{sa}+\mathbf{n}-D} \sum_{j_i=j^{sa}+s-j_{sa}}^{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{i=\mathbf{n}+\mathbb{K}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{K}_1}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{K}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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



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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}+n+j_{sa}^{ik}-l_{sa}-s-1} \sum_{j_{sa}=l_{sa}+n-D}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n-j_{sa}-s)} \sum_{n+\mathbb{k} \atop (n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ & \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{j_s=1}^{n - j_{sa}^{ik} + 1} \sum_{j_{ik}=l_{sa} + \mathbf{n} + j_{sa}^{ik} - D - j_s}^{n + j_{sa}^{ik} - s} \sum_{j_{sa}=j^{sa} + s - j_{sa}}^{(n + j_{sa}^{ik} - s)} \\
& \sum_{n_i=\mathbf{n} + \mathbb{k}_1}^{(n_i - j_s - 1)} \sum_{n_{is}=\mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_i - j_s - 1)} \sum_{n_{sa}=j^{sa} - j_i - \mathbb{k}_3}^{(n_{ik} + j_{sa} - j^{sa} - \mathbb{k}_2)} \\
& \sum_{n_s=\mathbf{n} - j_i + 1}^{(n - \mathbb{k}_3 - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$



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

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

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, j_{sa}^{ik}-j_{sa})}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}), \dots, (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{l_s}=n+\mathbb{k}-j_s, \dots, n_{l_s}=n+\mathbb{k}-j_s-j_{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2), \dots, (n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{( )} \sum_{n_{sa}+j_{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s = l_s + \mathbf{n} - D)}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \\
 &\sum_{j_{ik} = l_{ik} + \mathbf{n} - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_s}^{(n + j_{sa} - s)} \\
 &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbb{k}_1 + j_{ik} - \mathbb{k}_2 + \mathbb{k}_3}^{n_{is} + j_{ik} - \mathbb{k}_1} \\
 &\sum_{(n_{ik} + j_{ik} - \mathbb{k}_2 - \mathbb{k}_3)}^{(n_{ik} + j_{ik} - \mathbb{k}_2)} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D - j_{sa} + 1)}^{n_{sa} + j^{sa} - \mathbb{k}_3} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik} - n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 &\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + \mathbf{n} - D - j_{sa} + 1)}^{(n-s+1)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_2+l_3-j_i}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k2})} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-l_{k1}} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_{ik}-n_{is}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k2}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-l_{k2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}}^{(n-s+1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{( )}
\end{aligned}$$



$$\frac{\sum_{n_i=\mathbf{n}+\mathbb{k}}^n (n_i-j_s+1) \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_2}^{(n_i-j_s+1)} (n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_2}{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \frac{1}{(\mathbf{n}+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(n-j_i-1)!}{(l_s-j_i-n-\mathbb{k}_1-n-j_i)!}$$

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

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

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

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

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

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

$$S: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^s, \dots, \mathbb{k}_2, j_{sa}^s, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq e \quad s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: Z = 3, \quad \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$f^Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{i_s}=\mathbf{n}+\mathbb{k}_2-j_s+1}^{n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} n_{i_k}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{i_k}+1$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+l_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \\
& \frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - l_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - 1)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} + j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{is}=n+l_1-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(\quad)}$$

$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_i+n+j_{sa}-D-s-1)} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_s - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j_i + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^n \\
& \sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}^n \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - l_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

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

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

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa}^{ik}) \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_s - l_{sa} - s)!}{(j^{sa} + l_i - j_s - l_{sa})! \cdot (j_{ik} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_s = l_s + \mathbf{n} - D}^{(j_s - l_s - 1)} \cdot \\
& \sum_{j_{ik} = l_i + \mathbf{n} + j_{sa}^{ik} - D - s}^{n_{sa} - s} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{(\mathbf{n} + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{l_i} \cdot \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \cdot \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa} - j_{ik} - j_{sa}) \cdot (j_{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_s - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - l_{sa})! \cdot (j_{sa} + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s = j_{ik} - j_{sa}^{ik} + 1}} \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{\binom{()}{j_s = j_{ik} - j_{sa}^{ik} + 1}} \sum_{j_i = j^{sa} + s - j_{sa}}^{n_{sa}^{ik} - s} \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{\binom{()}{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}} \sum_{j_i = j^{sa} + s - j_{sa}}^{(n_i - j_s + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{\binom{()}{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}, j_i}^{j^{sa}, j_i} &= \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s = l_s + \mathbf{n} - D)} \\ &\sum_{j_{ik} = l_{ik} + \mathbf{n} - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(n + j_{sa} - s)} \sum_{j_i = l_i + \mathbf{n} - D}^n \\ &\sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{K}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_s - l_{sa} - s)! \cdot (j_i + j_s - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - l_i - 1)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \cdot \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{j_{ik}=j_s+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \cdot \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \cdot \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
\end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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

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

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

$$\sum_{k=0}^{\infty} \sum_{i_s=l_i+n-D-s+1}^{\infty}$$

$$\sum_{j_s=j_s+j_{sa}}^{(\quad)} \sum_{j_{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)}$$

$$\sum_{i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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



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

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

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

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

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

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$f_{Z^s}^{(j)} = \sum_{j_{ik}=j^{sa}+j_s}^{(j_i+j_{sa}-s)} \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_i=s+1}^{(j_i+j_{sa}-s)} \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{n_i=n+k}^{(n_i-j_s)} \sum_{n_{ik}=n+k_2+k_3-j_{ik}+1}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{n_{sa}=n+k_3-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j_{sa}-j_i-k_3)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\begin{aligned}
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{( )} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_{sa})} \sum_{(j_i = j_{sa} + 1)}^{(l_i)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{is} = \mathbf{n} + \mathbb{k}_3 - j_{ik} + 1}^{(n_{is} + j_s - j_{ik} - 1)} \\
& \sum_{(n_{ik} + j_{sa} - j_{sa} - \mathbb{k}_2) - 1}^{(n_{ik} + j_{sa} - j_{sa} - \mathbb{k}_2)} \sum_{j_i = \mathbb{k}_3}^{(j_i - \mathbb{k}_3)} \\
& \sum_{(n_s = \mathbf{n} + \mathbb{k}_3 - j^{sa} - 1)}^{(n_s = \mathbf{n} + \mathbb{k}_3 - j^{sa} - 1)} \sum_{n_s = \mathbf{n} - j_i + 1}^{(n_s = \mathbf{n} - j_i + 1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\binom{D}{s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{s}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}}^{\binom{D}{s}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{\binom{D}{s}} \sum_{j_i=s+j_{sa}-j_{ik}}^{l_{sa}+j_{sa}-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{\binom{D}{s}} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{\binom{D}{s}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

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

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

$$D \geq n < n - \mathbb{k} > \mathbb{k} \wedge$$

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

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f^z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{\binom{D}{s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{s}}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_i+j_{sa}-s)} \sum_{j_i=s+1}^{l_{ik}+j_{sa}^{ik}-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=l_{ik}+j_{sa}^{ik}-s+1}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s+1}^{l_{ik}+j_{sa}^{ik}-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

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

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

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

$$\sum_{j_s=1}^{n_s} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{n_s}$$

$$\sum_{j_{is}=j_{sa}-j_{sa}}^{l_s+j_{sa}-1} \sum_{(j^{sa}=j_{sa}+1)}^{l_s+j_{sa}-1} \sum_{j_i=l_s+s}^{l_i}$$

$$\sum_{(n_i-j_s+1)}^{n_i-j_s+1} \sum_{(n_{is}=n+l_k-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+l_k-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=n-j_i+1)}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$











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

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(l_{sa})}^{(l_{sa})} \sum_{(j^{sa}=j_{sa}+1)} \sum_{j_i=j_{sa}+s-j_{ik}}$$

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

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

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - j_{sa} - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!}$$

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

$$D \geq \mathbf{n} < n \wedge l_s > \mathbf{n} \wedge l_i \leq D + s - \mathbf{n} \wedge$$

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^i, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_i-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{D}{l_i}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(l_i+j_{sa}^{ik}-s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s + 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{ik}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
fz S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - 1)!}{(j^{sa} + l_i + j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\substack{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \\ (j^{sa}=j_{sa}+1) \\ j_i=j^{sa}+s-j_{sa}}}^{\binom{()}{l_s+j_{sa}-1}} \sum_{\substack{n_i=n+\mathbb{k} \\ (n_{is}=n+\mathbb{k}-j_s+1) \\ n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}}^{\binom{()}{n_i-j_s+1}} \sum_{\substack{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) \\ n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}}^{\binom{()}{n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3}} \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik} - j_{sa}^{ik} + 1, j_i} &= \sum_{k=1}^{l_{sa} + j_{sa} - j_{sa}^{ik}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{l_i} \\ &= \sum_{n_i = \mathbf{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)} \\ &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\quad \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_{ik}=j_s-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-j_{ik}} \sum_{j_i=j_s+s-j_{sa}}^{j^{sa}+j_{sa}^{ik}-j_{sa}-j_{ik}-j_s+1} \\
& \sum_{j_{ik}=j_s-1}^n \sum_{j_{sa}=j_{ik}-j_{sa}-j_{sa}^{ik}}^{j_s+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{n_{is}=n+j_s+1} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$l_s \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

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

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

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



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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{j_s=j_{ik}+1}^{(\cdot)} \sum_{j_{sa}=j_{ik}+1}^{(\cdot)} \\ &\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(\cdot)} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}+1)} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}+1)} \sum_{n_i=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}+1)} \\ &\frac{(n_{ik}-j_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\ &\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\ &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\ &\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\ &\frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{lk}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}^{ik}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{sa}+j^{sa}-j_i)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_i - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > s \wedge l_i \leq D + s - 1 \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - 1 \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa}^{lk} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D \geq n < n - \mathbb{k} > \mathbb{k} > 1 \wedge \\
& j_{sa}^{lk} - j_{sa}^{lk} - 1 \wedge j_{sa}^{lk} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}^s, \dots, j_{sa}^{lk}, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq 0 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{lk}+1}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=j_i+1)}^{(n_{sa}+j^{sa}-j_i-1)} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} -
\end{aligned}$$

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

$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{lk}+1}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_i}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{l_i} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa})!}{(j^{sa} + l_i + j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{sa} - j_{sa} + 1)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

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

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

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f^z \sum_{j_s=1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=j_{sa}^{ik}-j_{sa}+1}^{j_{ik}} \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)} \\ & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j^{sa}-j_{sa}^{ik}+1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\ & \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ & \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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

$$(l_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{k=1}^{l_{ik}} \sum_{j_s=1}^{j_s - j_{sa}}$$

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

$$\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{n_{is}=\mathbf{n}+j_s+1}^{j_s+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

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

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

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

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

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

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



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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f^Z_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{i=1} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{j_i=j_{sa}^{ik}-j_{ik}}^{j_{sa}^{ik}} j_i=j_{sa}^{ik}-j_{ik} \quad j_i=j_{sa}^{ik}-j_{ik}$$

$$\sum_{n_i=j_s+1}^n n_{ik-j_s-1} \dots$$

$$\sum_{(n_{sa}=n_{k3}-j_i^{sa}+1)} n_{sa} + j^{sa} - j_i - k_3 \quad \sum_{n_5=n-j_i+1}$$

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

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

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

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



$$\sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

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

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-1)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)! \cdot (j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}{(n - j_i - j_{sa} - j_{ik} - 3 \cdot s)!}$$

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

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

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(l_{sa})}^{(l_{sa})} \sum_{j_i=j_{sa}^{lk}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_2+l_3-j_i+l_1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_k+l_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k2})} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-l_{k1}} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{sa}-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k2}-1)!}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{sa}-n_{sa}-j_{sa}-l_{k2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)!(n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{( )}^{( )} \sum_{j_i=j_{sa}^{lk}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D + j_i - n - l_i)(n - j_i)!}
\end{aligned}$$

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

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

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

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

$$D + s - n < l_i \leq D + l_s + s - l_i + 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k}_1 + 0 \wedge$$

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

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^s, \mathbb{k}_3, j_{sa}^{ik}\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq \mathbb{k}_z \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

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



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_i - j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$

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

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa})!}{(j^{sa} + l_i + j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

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

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

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}, j_{sa}}^{(i)} &= \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\ &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j^{sa}=j_{sa}+1)} \sum_{j_i=l_i+n-D}^{l_{ik}+s-j_{sa}^{ik}} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{l_i!}{(D + j_i - \mathbf{n} - l_i)! \cdot (j_i)!} + \\
& \sum_{j_i = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa}^{ik} - j_{sa}^{ik})} \sum_{j_{sa} = j_{sa}^{ik} + 1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_i = l_{ik} + s - j_{sa}^{ik} + 1}^n \sum_{j_s = n + \mathbb{k}_1}^{(n_i - j_s)} \sum_{n_{is} = n + \mathbb{k}_1 - j_s + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \sum_{n_s = n - j_i + 1}^{(n_i - n_{is} - 1)!} \cdot \\
& \frac{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!} \cdot \\
& \frac{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



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

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

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

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\cdot)} \sum_{(j^{sa} = j_i + j_{sa} - j_{ik} - s)} \sum_{(j_i = n - D)}$$

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

$$\sum_{(n_{sa} = n_{ik} + j_{sa} - j_{sa}^{ik} - \mathbb{k}_2)}^{(\cdot)} \sum_{(n_{sa} = n_{ik} + j_{sa} - j_{ik} - \mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

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

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

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

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

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

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

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 &\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(j_i + j_{sa} - s)} \sum_{(j^{sa} = j_{sa} + 1)}^{l_s + s - 1} \sum_{(j_i = \mathbf{n} - D)}^{(\quad)} \\
 &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + j_{sa} - j_{ik} - \mathbb{k}_1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{sa} - j_{ik} - \mathbb{k}_1)}^{(n_{is} - j_s + 1)} \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{sa} - j_{ik} - \mathbb{k}_1)}^{(n_{ik} - j_{sa} - \mathbb{k}_2 - 1)} \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{sa} - j_{ik} - \mathbb{k}_1)}^{(n_{sa} - j_{sa} - 1)} \\
 &\frac{(n_{is} - j_s + 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{sa} - \mathbb{k}_1 - 1)!}{(n_{is} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_i - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 &\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}
 \end{aligned}$$



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



$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} (n_i+2 \cdot j_i+j_{sa}^{s}+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)! \cdot \\ \frac{1}{(n+2 \cdot j_i+j_{sa}^{s}+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D-n)}{(D+j_i+n-l_i)! \cdot (n-l_i)!}$$

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

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

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

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

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

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

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

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\},$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s,j_{ik},j^{sa},j_i}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - 1)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_i-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\quad)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



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

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

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

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

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^{z,j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\dots} \sum_{j_i=j_{sa}^{ik}+1}^{\dots} \\ & \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}^{ik}}^{\dots} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}^{ik}}^{\dots} \sum_{j_i=l_i+n-D}^n \\ & \sum_{j_i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}^{ik}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\mathbf{n}} (j_s = j_{ik} - j_{sa} - s) \cdot \\
& \sum_{k=j^{sa}+j_{sa}^{ik}}^{j^{sa}+j_{sa}^{ik}} (j^{sa} = l_i + j_{sa} - j_{sa}^{ik}) \cdot \sum_{j_i=j^{sa}+j_{sa}^{ik}}^{\mathbf{n}} (j_s = j_{ik} - j_{sa} - s) \cdot \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} (n_{is} = \mathbf{n} + \mathbb{k}_1 + 1) \cdot \sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{\mathbf{n}} (n_{is} = \mathbf{n} + \mathbb{k}_1 + 1) \cdot \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{\mathbf{n}} (n_{is} = \mathbf{n} + \mathbb{k}_1 + 1) \cdot \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{\mathbf{n}} (n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1) \cdot \sum_{n_s=\mathbf{n}-j_i+1}^{\mathbf{n}} (n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1) \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{n}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{n}} \\
& \sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{\binom{D}{n}} \sum_{(j_{sa} = l_i + n + j_{sa} - D - s)}^{\binom{D}{n}} \sum_{j_i = j_{sa} + s - j_{sa}}^{\binom{D}{n}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_{sa}^{ik})}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{sa}^{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \\
& \sum_{(n_{ik} + j_{sa}^{ik} - \mathbb{k}_2) \leq j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s}^{\binom{D}{n}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

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

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

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

$$l_i \wedge I = \mathbb{k} > 0 \wedge$$

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=l_i+n-j_{sa}^{ik}+1}^{\binom{()}{j_i=l_i+n-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{()}{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}} \sum_{(j^{sa}=j_{sa}+1)}^{\binom{()}{j^{sa}=j_{sa}+1}} \sum_{j_i=l_i+n-j_{sa}^{ik}+1}^{\binom{()}{j_i=l_i+n-j_{sa}^{ik}+1}} \sum_{n_i=n+\mathbb{k}}^{\binom{()}{n_i=n+\mathbb{k}}} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}} \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1}^{\binom{()}{n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1}} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{\binom{()}{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{\binom{()}{n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3}} \sum_{(j^{sa}=j_{sa}+1)}^{\binom{()}{j^{sa}=j_{sa}+1}} \sum_{(n=n-j_i+1)}^{\binom{()}{n=n-j_i+1}} \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=l_i+n-j_{sa}^{ik}+1}^{\binom{()}{j_i=l_i+n-j_{sa}^{ik}+1}}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+lk_2+lk_3-j_{ik}-lk_1}^{n_{is}+j_s-j_{ik}-lk_1} \\
& \sum_{(n_{sa}=n+lk_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-lk_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-lk_1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-lk_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-j_{ik}-lk_1)!} \cdot \\
& \frac{(n_{ik}-n_s-lk_2-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_s-n_{sa}-j^{sa}-lk_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{D-l_i}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{\binom{D-l_i}{j_s}}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-lk_1}^{n_{is}+j_s-j_{ik}-lk_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} \wedge$$

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

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

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\},$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j^{sa} - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \\
& \frac{(l_i + j^{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - 1)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{(\quad)}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=l_i+n_{sa}^{ik}-j_{sa}^{ik}-D-s}^{\binom{(\quad)}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}} j_i=j_{sa}^{ik}+s-j_{sa} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{(\quad)}{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



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

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

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

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

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^{z,j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{sa}^{ik}} \sum_{j_i=j_{sa}^{ik}}^{j_{sa}^{ik}} \\ & \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{l_i+j_{sa}^{ik}-D-s-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{( )} \sum_{j_i=l_i+n-D}^n \\ & \sum_{n_i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\sum_{i=1}^s (j_s = j_{ik} - j_{sa} - 1)} \frac{(j_s - j_{ik} - j_{sa} - 1)!}{(j_s - j_{ik} - j_{sa} - 1)!} \cdot \\
& \sum_{i_k=l_i+n+j_{sa}-D-s}^{l_{ik}} \sum_{j_s=j_{ik}-j_{sa}-1}^{(j_s-j_{ik}-j_{sa}-1)} \sum_{j_i=j_s-j_{sa}}^n \frac{(j_s - j_{ik} - j_{sa} - 1)!}{(j_s - j_{ik} - j_{sa} - 1)!} \cdot \\
& \sum_{j_i=j_s-j_{sa}}^n \sum_{j_s=j_{ik}-j_{sa}-1}^{(j_s-j_{ik}-j_{sa}-1)} \sum_{n_{is}=n+\mathbb{k}_1+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \frac{(j_s - j_{ik} - j_{sa} - 1)!}{(j_s - j_{ik} - j_{sa} - 1)!} \cdot \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}=n+\mathbb{k}_2+j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_{ik}^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(j_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{( )} \sum_{j_{ik}-j_s-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

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

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

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

$$n - l_i - l_s \wedge I = \mathbb{k} > 0 \wedge$$

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

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

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_i-j_s+\mathbb{k}-\mathbb{k}_1}^{n_{is}+j_s-\mathbb{k}-\mathbb{k}_1}$$

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

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

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

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{is} - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{is} - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{is} - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

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

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

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

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



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2+k_3-j_i}^{n_{is}+j_s-j_{ik}-k_1} \\
& \sum_{(n_{sa}=n+k_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-k_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-k_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^n \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

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

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

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

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

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{\mathbf{n}}$$

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

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{n} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n} \sum_{j_i=j^{sa}+s-j_{sa}}^{n} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - 1)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{sa} - j_{sa} + 1)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)} \\
& \sum_{j_{ik} = j_{ik} + j_{sa}^{lk} - 1}^{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})} \sum_{j_i = j^{sa} + s - j_{sa}}^{( )} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



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

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

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

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

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

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

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

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} j_{sa}^{ik} - j_{sa}^{ik} + 1 &= \sum_{k=1}^{(D-s)} \sum_{(j_s=2)}^{(D-s)} \\ &= \sum_{(j_{ik}=j_s+j_{sa})}^{(D-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^n j_i = l_i + n - D \\ &= \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &= \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{(n_s=n-j_i+1)}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &= \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &= \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &= \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &= \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_i - j_{sa}^{ik} + 1)} \frac{(l_i - j_{sa}^{ik} + 1)!}{(j_s = l_i + \mathbf{n} - j_s + 1)!} \cdot \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - (j^{sa} = j_{ik} + j_{sa} - j_s)}^{(j^{sa} = j_{ik} + j_{sa} - j_s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{(j^{sa} = j_{ik} + j_{sa} - j_s)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}_1}^{(n_{is} = \mathbf{n} + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k}_1 - j_s + 1)}^{(n_{is} = \mathbf{n} + 1)} \sum_{j_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{is} = \mathbf{n} + 1)} \\
& \sum_{(n_{ik} = \mathbf{n} - j_{sa} - \mathbb{k}_2)}^{(n_{ik} = \mathbf{n} - j_{sa} - \mathbb{k}_2)} \sum_{n_{sa} = j^{sa} - j_i - \mathbb{k}_3}^{(n_{sa} = \mathbf{n} - j_{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \mathbf{n} - j_{sa} - \mathbb{k}_2)}^{(n_{sa} = \mathbf{n} - j_{sa} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\sum_{j_s=l_i+n-D-s+1}} \sum_{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j_{sa}+s-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{lk} - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

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

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

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

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

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

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fzS_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)} \\
&\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+n-n}^n \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}+j_{ik}-j_i-\mathbb{k}_3)}^{(n_{sa}+j_{ik}-j_i-\mathbb{k}_3)} \\
&\sum_{(n_{sa}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{ik}+1)} \sum_{n_s=n-j_i}^{(n_s=n-j_i)} \\
&\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
&\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
&\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

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

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

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

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

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

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

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

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

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

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

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

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



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{(j_i=l_{ik}+j_{sa}^{ik}-s+1)}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
\end{aligned}$$



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



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

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

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{j_s=j_{ik}+1}^{( )} \sum_{j_{sa}=j_{ik}+1}^{( )} \sum_{j_i=j_s+1}^{( )} \sum_{j_{sa}=j_{ik}-j_s}^{( )} \sum_{j_i=j_s+1}^{( )} \sum_{n_i=n+\mathbb{k}}^{(n_i-1)} \sum_{n_{is}=n+\mathbb{k}+j_s-1}^{(n_{is}-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}-1)} \sum_{n_{sa}=n_{ik}-j_{sa}-\mathbb{k}_2}^{(n_{sa}-1)} \sum_{n_s=n-j_i+1}^{(n_s-1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_i+j_{sa}^{ik})}^{( )} \sum_{j_i=l_s+s}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_s+1)}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j^{sa}-1)} \sum_{j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_2} \\
& \frac{(j_s-2)! \cdot (n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s+1}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(j_s - 1)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

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

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa}^{ik} \wedge j_{sa} + j_{sa}^{ik} - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - j_{sa}^{ik} + j_{sa} = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l_s > 0 \wedge$$

$$j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq j_{sa} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{j_i=j_{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = l_{ik} + j_{sa}^{ik} - s + 1)}^{(l_{sa})} \sum_{j_i = j^{sa} + s - j_{sa}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa}^{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\substack{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \\ (j^{sa}=j_{sa}+1) \\ j_i=j^{sa}+s-j_{sa}}}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{\substack{n_i=n+\mathbb{k} \\ (n_{is}=n+\mathbb{k}-j_s+1) \\ n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}}^{(n_i-j_s+1)} \sum_{\substack{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) \\ n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}}^{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik} - j_{sa}^{ik} + 1, j_i} &= \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \\ &\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_{sa} + j_{sa}^{ik} - j_i} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_s + j_{sa} - 1)} \sum_{j_i = j^{sa} + s - j_{sa}} \\ &\sum_{n_i = \mathbf{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{l_s} \sum_{j_{ik}=j_s}^{l_{ik}} \sum_{j_{sa}=j_{ik}-l_{sa}}^{l_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}^{l_s} \sum_{j_{ik}=j_{sa}+1}^{l_{ik}} \sum_{j_{sa}=l_s+j_{sa}}^{l_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}^{l_s} \\
& \sum_{n_{ik}=n_{ik}-\mathbb{k}_1}^n \sum_{n_{is}=n_{is}+\mathbb{k}_1-1}^{(n_{is}+1)} \sum_{n_{ik}=n_{ik}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{sa}-j_{sa}-\mathbb{k}_2}^{n_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{(\quad)}{(j_s = j_{ik} - j_{sa}^{ik} + 1)}} \sum_{j_{ik} = j^{sa} + j_{sa}^{lk} - j_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = j_{sa} + 1)}^{j_{ik} - j^{sa} + s - j_{sa}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{(n_i - j_s + 1)} \sum_{(n_{is} = n_{ik} + j_s - j_{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \sum_{(j_{sa} = j_i - \mathbb{k}_3)}^{(n_i - j_s + 1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq 1 \wedge \mathbf{l}_i \leq 2 + s - 2 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \mathbf{l}_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbb{I} = \mathbb{k} > 0 \wedge$$

$$j_{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f_{zS} S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 &\sum_{j_{ik}=j_{sa}^{lk}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa}-j_i-\mathbb{k}_3)}^{(n_{ik}+j_{ik}-j^{sa}-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-j_i-\mathbb{k}_3)} \sum_{n_s=n-j_i+1}^{(n_{sa}-j_{sa}+1)} \\
 &\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa}-n_s-1)!}{(j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
 &\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 &\sum_{j_{ik}=j_{sa}^{lk}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D - j_i - \mathbf{n} - \mathbb{k}_1 - \mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_s \leq j_i \leq j_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_s - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}, \mathbb{k}_3, j_s^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!} \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{lk}+1}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i - 1)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{lk} - j_{sa}^{lk} - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(\mathbf{n} - l_i - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\sum_{j_s=j_s+j_{sa}}^{(j_s=j_s+j_{sa})} \sum_{j_i=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_i=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j_i=j^{sa}+s-j_{sa})}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$







$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_{sa}^{ik}=j_{sa}-j_{sa}^{ik}}^{(j_{sa}^{ik}=j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=j_s-j_{ik}-\mathbb{k}_1}^{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{n_{sa}=j_{sa}-j_i-\mathbb{k}_3}^{(n_{sa}=j_{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - j_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} \leq j_{ik}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 &\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{(\quad)} \sum_{l_{ik} = s - j_s}^{l_{ik} + s - j_s} \\
 &\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_s + 1)} \\
 &\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_1 - j^{sa} + 1)}^{(n_i - j_s + 1)} \sum_{j_i = 1}^{j_i + 1} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_i - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 &\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{ik}+s-j_{sa}^{ik}+1}^n \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_{k_2}+l_{k_3}-j_{ik}-1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_{k_3}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k_2}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_i-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
& \sum_{k=1}^{\sum} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_{ik}+s-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n}+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
& \frac{(D-n)}{(D+j_i-\mathbf{n}-l_i)! \cdot (n-l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\},$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k} = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i}^S = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+n-D}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{is} + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^z \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=j_{sa}+s-j_{sa}}^{j_i=j_{sa}+s-j_{sa}} \\ & \sum_{j_{sa}=j_{sa}^{ik}+1}^{j_{sa}=j_{sa}^{ik}-j_{sa}} \sum_{(j_s=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j_{sa}+s-j_{sa}} \\ & \sum_{i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{(n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}+1)}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{j_s=1}^{l_{ik}} \sum_{j_{sa}=j_{ik}-j_{sa}^{l_{sa}}}^{l_{sa}-j_s} \sum_{j_{ik}=j_{sa}^{l_{sa}}}^{l_{ik}} \sum_{j_{sa}=l_{ik}-j_{sa}^{l_{sa}}}^{l_{sa}-j_s} \sum_{j_i=j_{sa}^{l_{sa}}}^{l_{sa}-j_s} \sum_{j_{sa}=l_{ik}-j_{sa}^{l_{sa}}}^{l_{sa}-j_s} \\
& \sum_{n_{ik}=\mathbb{K}_1}^n \sum_{n_{is}=\mathbb{K}_2}^{(n_{ik}+j_s+1)} \sum_{n_{ik}=\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \sum_{n_{sa}=\mathbb{K}_3-j_{sa}-\mathbb{K}_2}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1)} \sum_{n_s=\mathbf{n}-j_i+1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{n}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{n}} \\
& \sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{\binom{D}{n}} \sum_{(j_{sa} = l_i + n + j_{sa} - D - s)}^{\binom{D}{n}} \sum_{j_i = j_{sa} + s - j_{sa}}^{\binom{D}{n}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_{sa}^{ik})}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{sa}^{ik} - \mathbb{k}_1}^{\binom{D}{n}} \\
& \sum_{(n_{ik} + j_{sa}^{ik} - \mathbb{k}_2) \leq n_{is}}^{\binom{D}{n}} \sum_{(j_i - \mathbb{k}_3)}^{\binom{D}{n}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq n - 1 \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_{ik} + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} + j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1 \wedge$$

$$l_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_1-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\sum_{(j^{sa}-j_{sa}^{ik}-1)}^{(j^{sa}-j_{sa}^{ik}-1)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-1)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-1)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j^{sa}-j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i+n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
& \sum_{k=1}^{\binom{(\cdot)}{(j_s=j_{ik}-j_{sa}^{ik}+1)}} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n}+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
& \frac{(D-n)}{(D+j_i-\mathbf{n}-l_i)! \cdot (n-l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k} = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s,j_{ik},j^{sa},j_i}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{is} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_1)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = l_i + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)} \sum_{j_i = j^{sa} + s - j_{sa}}^{(\quad)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^{z,j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}} \sum_{j_i=j_{sa}^{ik}+1}^{j_{sa}^{ik}} \\ & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-s-1} \sum_{j_i=l_i+n+j_{sa}^{ik}-D-s}^{(n-j_{sa}^{ik}-s)} \sum_{j_i=j_{sa}^{ik}+s-j_{sa}}^{(n-j_{sa}^{ik}-s)} \\ & \sum_{i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}^{ik}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$







$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}), \dots, (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{l_s}=n+\mathbb{k}-j_s, \dots, n_{l_s}=n+\mathbb{k}-j_s-j_{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2), \dots, (n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{( )} \sum_{n_{sa}+j_{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa}^s + s - j_{sa} \leq j_i \leq n \wedge$$

$$-j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{(l_i + \mathbf{n} - D - s)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
 &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{sa}+1)}^{(n_{is}+j_s-j_{sa}-\mathbb{k}_1)} \\
 &\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_i - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 &\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_2+l_3-j_{ik}-l_1}^{n_{is}+j_s-j_{ik}-l_1} \\
& \sum_{(n_{sa}=n+l_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-l_1-1)!}{(j_{ik}-j_s-1)!(n_i-n_{is}-j_{ik}-l_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_2-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_s-n_{sa}-j^{sa}-l_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
& \sum_{k=1}^{(l_{ik}-j_{sa}^{lk}+1)} \sum_{(j_s=l_i+n-D-s+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1}
\end{aligned}$$



$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \frac{1}{(\mathbf{n}+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D-l_s)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (n-l_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k} = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i+\mathbf{n}-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{is} + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!} \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_3)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_3)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(l_s)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{( )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \sum_{j_i = j^{sa} + s - j_{sa}}^{( )} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^{z,j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{sa}^{ik}-j_{sa}} \sum_{j_i=j_{sa}^{ik}-j_{sa}}^{l_{ik}+s-j_{sa}^{ik}} \\ & \sum_{j_i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}^{ik}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{j_s=1}^{l_{ik}} \sum_{j_{sa}=j_{ik}-j_{sa}^{l_{sa}}}^{l_{sa}} \sum_{j_{ik}=j_{ik}+1}^{l_{ik}} \sum_{j_i=l_{ik}+s-j_{sa}^{ik}+1}^{n} \sum_{j_{is}=j_{is}+1}^{n} \sum_{n_{ik}=n_{ik}+\mathbb{k}_1}^{n} \sum_{n_{is}=n_{is}+\mathbb{k}_1+1}^{n} \sum_{n_{ik}=n_{ik}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n} \sum_{n_{sa}=n_{sa}+j_{sa}-j_{ik}-\mathbb{k}_1}^{n} \sum_{n_{sa}=n_{sa}+j_{sa}-j_{ik}-\mathbb{k}_2}^{n} \sum_{n_{sa}=n_{sa}+j_{sa}-j_{ik}-\mathbb{k}_3}^{n} \sum_{n_{sa}=n_{sa}+j_{sa}-j_{ik}-\mathbb{k}_3}^{n} \sum_{n_s=n-j_i+1}^{n} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{j_i}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik} = j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}}^{\binom{D}{j_{ik}}} \sum_{(j_{sa} = j_i + j_{sa} - s)}^{\binom{D}{j_{sa}}} \sum_{j_i = l_{sa} + j_{sa} - s - D - j_{sa}}^{l_{ik} + s - j_{sa}^{ik}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_{sa}^{ik} + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{sa}^{ik} - \mathbb{k}_1}^{j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{k}_2} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{ik} - j_{ik} - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq 1 \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq j_{sa}^{ik} + j_{sa} - s \wedge j_{sa}^{ik} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} + j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - 1 \leq l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$l_s \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(j_{ik}=n_{is}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j^{sa}=n_{sa}+j^{sa}-j_{sa})}^{n_{sa}+j^{sa}-j_{sa}}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -
\end{aligned}$$

$$\sum_{k=1}^{\sum} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}}^{\sum} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{\sum}$$



$$\begin{aligned}
 & \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
 \end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_s + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{is}, \dots, \mathbb{k}_2, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\},$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i}^S = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{is} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_3)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_3)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^{z,j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik},j_{sa}^{ik}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \\ & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \\ & \sum_{i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{l_{sa}}}$$

$$\sum_{j_s=j_{ik}+1}^{l_s} \sum_{j_s=l_s+j_{sa}}^{l_s+j_{sa}-s} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=1}^n \sum_{n_{is}=n+\mathbb{k}_1-1}^{(n_{is}+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+\mathbb{k}_2}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \sum_{n_s=n-j_i+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{j_i}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{\binom{l_s + j_{sa} - 1}{j_{ik}}} \sum_{(j_{sa} = l_{sa} + n - D)}^{\binom{l_s + j_{sa} - 1}{j_{sa}}} \sum_{j_{ik} = j_{sa} + s - j_{sa}}^{\binom{l_s + j_{sa} - 1}{j_{ik}}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{\binom{n_i - j_s + 1}{n_{ik}}} \\
& \sum_{(n_{sa} = n_{ik} + j_{sa} - \mathbb{k}_2)}^{\binom{n_i - j_s + 1}{n_{sa}}} \sum_{j_{ik} = j_{sa} - j_i - \mathbb{k}_3}^{\binom{n_i - j_s + 1}{j_{ik}}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq 1 \wedge l_s \leq D - n \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_{sa} + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - l_{sa} \leq l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$n - n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}-1)}^{n_{sa}+j^{sa}-j_{sa}-1} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}-1)}^{n_{sa}+j^{sa}-j_{sa}-1} \sum_{(j_{ik}+j_{sa}^{ik}-j_{sa}-1)}^{n_{sa}+j^{sa}-j_{sa}-1}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{is}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_s-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
 & \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
 \end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_2, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\},$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k} = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_1)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{l_s - j_s - 1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{(\cdot)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(\cdot)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f(z) = \sum_{j_{ik}=j_s+j_{sa}}^{(l_{sa}-D-j_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}}^{(l_{sa}-D-j_{sa})} \\ & \sum_{j_{ik}=j_s+j_{sa}}^{(n_i-j_s+1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(n_{is}+j_s-j_{ik}-\mathbb{K}_1)} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j_{sa}-j_i-\mathbb{K}_3)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{ik} - l_{sa}^{ik} + 1)} \frac{(l_{ik} - l_{sa}^{ik} + 1)!}{(l_{sa} + \mathbf{n} - l_{sa}^{ik} - j_{sa} + 1)!} \cdot \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}}^{(n_{ik}-s)} \sum_{j_{sa}=l_{ik}+j_{sa}-j_s}^{(n_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n_i-s)} \cdot \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_{ik}+\mathbb{k}+1)} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}-j_s+l_{ik}-j_{sa}-\mathbb{k}_1}^{(n_{sa}+\mathbb{k}-\mathbb{k}_1)} \sum_{n_s=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}-j^{sa}-\mathbb{k}_2)} \cdot \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \sum_{n_s=\mathbf{n}-j_i+1}^{(n_{sa}-j^{sa}-\mathbb{k}_3-j^{sa}+1)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n - l_{sa} \leq D - l_s + j_{sa} - n - 1 \wedge$$

$$D < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz_{j_s, j_{ik}, j^{sa}, j_i} = & \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(n+j_{sa}-s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_s-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{sa}+j^{sa}-j_i-l_{k3})} \sum_{(n_{sa}=n+l_{k3}-j_{ik}+1)}^{(n_{sa}+j^{sa}-j_i-l_{k3})} \sum_{n_s=n-j_i}^{(n_{sa}+j^{sa}-j_i-l_{k3})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k2})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_i - j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\sum} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\sum} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{\sum} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{\sum} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{\sum}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(j_i + j_{sa} - s)} \sum_{j_i = s + 1}^{l_{ik} + j_{sa}^{ik} - s}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - 1)!}{(j^{sa} + l_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \sum_{j_i=l_{ik}+j_{sa}^{ik}-s+1}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_i - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_{ik}=j_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=j_i} \sum_{j_{sa}=j_i+j_{sa}-s}^{( )} \sum_{j_i=s+1}^{l_{ik}+j_{sa}^{ik}-s}$$

$$\sum_{i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_{Z^s}^{(j)}(j) &= \sum_{(i_s=j)}^{(j)} \sum_{(i_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}+j_{sa}^{ik}-j_{sa})} \sum_{(j_i=j_{sa}+s-1)}^{(j_i+j_{sa}-s)} l_{s+s-1} \\ &\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_i+j_{sa}-s)} \sum_{j_i=s+1}^{j_i+j_{sa}-s} \\ &\sum_{(n_i=j_s)}^{(n_i-j_s)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{( )} \sum_{j_s=j_i+l_{sa}+1}^{( )} (j_s=j_i+l_{sa}+1)$$

$$\sum_{j_{ik}=l_{sa}+1}^{l_s+j_{sa}-1} \sum_{j_{sa}=j_{ik}+1}^{(l_{sa})} \sum_{j_i=l_s+s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i+l_{sa}+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i+l_{sa}+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i+l_{sa}+1)-\mathbb{k}_1}$$

$$\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j^{sa}-\mathbb{k}_2)}^{(n_i+l_{sa}+1)-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{j_i}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{D}{j_{ik}}} \sum_{(j_{sa}=j_i+j_{sa}-s)}^{\binom{D}{j_{sa}}} \sum_{j_i=s+1}^{l_s+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(j_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{\binom{D}{j_{sa}}} \sum_{j_i=j_i-\mathbb{k}_3}^{\binom{D}{j_i}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq 1 \wedge l_i \leq 2 + s - 2 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_{sa} + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + j_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n - 1 = \mathbb{k} > 0 \wedge$$

$$j_{sa} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{j_i=j^{sa}+s}^{l_i} \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{ik}-1)}^{(n_{sa}=n+\mathbb{k}_3-j_{ik}-1)} \sum_{n_s=n-j_i+1}^{(n_{sa}=n+\mathbb{k}_3-j_{ik}-1)} \\
&\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
&\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa}-n_s-1)!}{(j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
&\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j_{sa}=l_{ik}+j_{sa}^{ik}-s+1)}^{(l_{sa})} \sum_{j_i=j_{sa}^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_2} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{sa}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{sa}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)!(n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s)} \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{(j_{sa}=j_{sa}+1)}^{(l_{sa})} \sum_{j_i=j_{sa}^{sa}+s-j_{sa}}^{l_i}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot \\
& \frac{(l_s-2)!}{(l_s+j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(n-j_i+1)}{(D+j_i-\mathbf{n}-\mathbb{k}_1)(n-j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_s \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_s - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}, \mathbb{k}_3, j_s^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + l_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$\begin{aligned} S_{i_s, j_s} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\ \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i = j^{sa} + s - j_{sa}}^{l_i} \\ \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 + k_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \\ \sum_{(n_{sa} = n + k_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - k_3} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j_{sa}^{ik} + l_{sa} - j_{sa}^{ik} - j_{sa})!}$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! (j_i + j_{sa} - j_i - s)!}.$$

$$\frac{(D - l_i)!}{(n - l_i)! (n - j_i)!}$$

$$\sum_{s=1}^n (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{j_{ik}=j_{sa}} l_{ik} \sum_{j_{ik}=j_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{j_s=0}^{(n_i-j_s+1)} \sum_{i_k=n_i+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_{Z^S}^{(j)}(j) &= \sum_{(i_s=j)}^{(j)} \sum_{(i_{ik}=j_{sa}^{ik}+1)}^{(j)} \sum_{(i_i=j_{sa}^{ik}+s-j_{sa})}^{(j)} l_i \\ &\sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j)} \sum_{(j_{sa}^{ik}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik})}^{(j)} \sum_{(j_i=j_{sa}^{ik}+s-j_{sa})}^{(j)} l_i \\ &\sum_{(n_i=j_s)}^{(n_i-j_s)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s)} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_s)} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{( )} \sum_{j_s=j_i+l_{sa}^{ik}+1}^{( )} \sum_{j_{ik}=j_{sa}^{ik}}^{l_s+j_{sa}^{ik}-1} \sum_{j_{ik}+j_{sa}-j_s=j_i=j^{sa}+s-j_{sa}}^{( )} \sum_{n_i=\mathbb{k}-(n+\mathbb{k}-j_s-j_{sa}-j_{ik})}^{(n_i+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i+n_{ik}+j_i+j_{sa}-\mathbb{k}_2)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \frac{(n_i+n_{ik}+j_i+j_{sa}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i+\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D > \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_i + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j^{sa}=j_{ik}+j_{sa})}^{l_i} \sum_{n_i=n+\mathbb{K}_1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(n_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{(n_{ik}-j_{sa}-\mathbb{K}_2)}^{(n_{ik}-j_{sa}-\mathbb{K}_1-1)} \sum_{(n_{ik}-j_{sa}-\mathbb{K}_1-1)}^{(n_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{(n_i-n_{is}-1)!} \frac{(j_s-1)! \cdot (n_i-n_{is}-j_s+1)!}{(n_{is}-n_{ik}-\mathbb{K}_1-1)!} \cdot \frac{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{K}_1)!}{(n_{ik}-n_{sa}-\mathbb{K}_2-1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{K}_2-1)!}{(j_i-j^{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{K}_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}.$$



$$\begin{aligned}
& \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1 \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{is}=n_{sa}+j_{sa}-j_i)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq \mathbf{n} < n \wedge l_s > \mathbf{n} \wedge l_s \leq D - \mathbf{n} - 1 \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D + s - \mathbf{n} < \mathbf{n} \leq D + l_s + s - \mathbf{n} - 1 \wedge \\
& D < \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} = j_{sa}^i \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$



$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n}^{l_{ik}+s-j_{sa}^{ik}} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_1}-1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1}-1)} \sum_{(n_{sa}=n+l_{k_3}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1}-1)} \sum_{n_s=n-j_i+l_{k_3}}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1}-1)} \\
 &\frac{(n_s-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \cdot \\
 &\frac{(n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
 &\frac{(n_{sa}-n_s-1)!}{(j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 &\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_{ik}+s-j_{sa}^{ik}+1}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_s-\mathbb{k}_2-1)}{(j^{sa}-j_{ik}-1) \cdot (n_{ik}+j_s-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1) \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{()}{}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{\binom{()}{}} \sum_{j_i=l_i+n-D}^{l_{ik}+s-j_{sa}^{ik}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D + j_i - \mathbf{n} - l_i)(\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa}^{ik} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge j_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} + 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^s\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - 1)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik} - \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j_{sa}^{ik}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j_{sa} = l_{sa} + \mathbf{n} - D)}^{(l_i + \mathbf{n} + j_{sa} - D - s - 1)} \sum_{j_i = l_i + \mathbf{n} - D}^{\mathbf{n}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j_{sa} - j_i - \mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_i - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_i=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\
& \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{sa} - l_{ik})! \cdot (j_{sa}^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa}^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa}^{sa} - j_{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}^{sa}-j_{sa}^{ik})} \sum_{j_{sa}^{sa}=l_{ik}+j_{sa}-D-s}^{(j_{sa}^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})} \sum_{j_i=j_{sa}^{sa}+s-j_{sa}}^{(j_{sa}^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})} \\
& \sum_{n_{is}=n+l_k}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}^{(n_{is}=n+l_k-j_s+1)} \sum_{n_s=n_{sa}+j_{sa}^{sa}-j_i-l_{k3}}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{sa}-l_{k2})} \\
& \frac{(n_i - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k1} - l_{k2} - l_{k3})!}{(n_i - n - l_{k1} - l_{k2} - l_{k3})!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \leq j_i + j_{sa} - s \wedge j_{sa}^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f_Z S_{j_s, j_{ik}, j_{sa}, j_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=l_i+n-D}^n \\ & \sum_{j_{ik}=j_{sa}}^{j_{sa}+j_{sa}^{ik}-j_{sa}^{ik}+n+j_{sa}^{ik}-1} \sum_{(j_{sa}=n-D)}^n \sum_{j_i=l_i+n-D}^n \\ & \sum_{n_i=n}^n \sum_{(n_{is}=n+\mathbb{k}_1+1)}^{(n_i-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ & \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ & \frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=1}^{( )} \sum_{j_s=j_i+l_{sa}^{ik}+1}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=n+j_{sa}-D+l_{sa}^{ik}+1}^{(l_s+j_{sa}^{ik}-1)} \sum_{j_{is}=j^{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=n+l_k}^{(n_i+l_k-1)} \sum_{n_{is}=n+l_k-j_s+l_{sa}^{ik}+1}^{(n_i+l_k-1)} \sum_{n_{ik}=n+l_k+l_{sa}^{ik}-j_{ik}+1}^{(n_i+l_k-1)}$$

$$\sum_{n_{sa}=n+l_k+l_{sa}^{ik}-j^{sa}+1}^{(n_{ik}+j_{sa}^{ik}-j^{sa}-l_{sa}^{ik}-1)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j_{sa}^{ik}-j^{sa}-l_{sa}^{ik}-1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!}.$$

$$\frac{(n_{ik} - n_{sa} - l_{k2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k2})!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{\binom{()}{}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = l_s + j_{sa})}^{(l_{sa})} \sum_{j_i = j_{sa}^{sa} + s - j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - \mathbb{k}_1 + 1}^{n_{is} + j_s - \mathbb{k}_1} \\
& \sum_{(n_{sa} = \mathbb{k}_3 - j_{sa}^{sa})}^{(n_{ik} + j_{ik} - j_{sa}^{sa} - 1)} \sum_{j_i + 1}^{n_{sa} + j_{sa}^{sa} - j_i - \mathbb{k}_2} \\
& \frac{(j_s - 2)! \cdot (n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa}^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2, n_{is}=n_{sa}+j_{sa}-j_i)}^{(n_i-j_s+1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa} \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_s \leq D + l_s + s - n - 1 \wedge$$

$$D > n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_i+n}^n \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1-j_i-\mathbb{k}_3)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}-1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1-j_i-\mathbb{k}_3)} \sum_{n_s=n-j_i+j^{sa}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\frac{(n_s-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-1)!} \cdot \\
&\frac{(n_{ik}-n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa}-n_s-1)!}{(j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
&\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(l_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_2+l_3-j_i+1}^{n_{is}+j_s-j_{ik}-l_1} \\
& \sum_{(n_{sa}=n+l_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-l_1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{sa}-n_{ik}-j_{ik}-l_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_2-1)!}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{sa}-n_{sa}-j_{sa}-l_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)!(n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{lk}+1}} \sum_{j_i=j_{sa}+s-j_{sa}}^{\binom{()}{j_i=j_{sa}+s-j_{sa}}} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{\binom{()}{j_i=j_{sa}+s-j_{sa}}} \sum_{j_i=j_{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - j_i - n - l_i - n - j_i)!}{(D - j_i - n - l_i - n - j_i)!}.$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa}^{sa} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa}^{ik} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - l_i - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k}_1 + 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^{sa} \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^s\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_i+n-D}^n$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{(l_s - j_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j_{sa}=l_{sa}+\mathbf{n}-D)}^{(l_{sa})} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(l_{sa})} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{ik})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - l_{sa} - s)! \cdot (j_i + j^{sa} - j_{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_i + n - D - s + 1)}^{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = n_s + j_{sa}^{ik} - 1}^{(j_{ik} = n_s + j_{sa}^{ik} - 1)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{(j_i = j^{sa} + s - j_{sa})} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} j_{sa}^{ik} - j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} &= \sum_{\mathbb{K}=1}^{(D-s)} \sum_{(j_s=2)}^{(D-s)} \\ &\sum_{j_{ik}=j_s-j_{sa}-1}^{(l_{sa})} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n=\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &\sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=l_i+n-D-s+1}^{l_i} \sum_{j_{ik}=j_s+l_{ik}-1}^{l_{sa}} \sum_{j_{sa}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}} \sum_{j_i=j_s-j_{sa}}^n \\
& \sum_{n_{ik}=n+l_{ik}-1}^n \sum_{n_{is}=n+l_{ik}-1}^{j_s+1} \sum_{n_{ik}=n+l_{ik}-1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_{k_3}-j^{sa}+1)}^{(n_{sa}=n+l_{k_3}-j^{sa}+1)} \sum_{n_{sa}=n+l_{k_3}-j^{sa}+1}^{n_{sa}+j^{sa}-j_i-l_{k_3}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{k=1}^{\sum} \sum_{(j_s=l_i+n-D-s+}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\sum} \sum_{(j^{sa}=j_{ik}+j_{sa}^{ik}-j_s)}^{\sum} \sum_{(j_i=j^{sa}+j_{sa}-j_{sa})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=\mathbf{n}+j_s-j_{ik}-\mathbb{K}_1)}^{(n_{ik}=\mathbf{n}+j_s-j_{ik}-\mathbb{K}_1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}-j^{sa}-\mathbb{K}_2)}^{\sum} \sum_{(n_{sa}+j_{sa}-j_i-\mathbb{K}_3)}^{\sum}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} \wedge l_s > 1 \wedge \mathbf{n} \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$



$$\mathbb{k}_Z: Z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_i=s+1}^{l_s+s-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j^{sa}=j_i+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=j^{sa}-j_{sa}-\mathbb{k}_3)}^{(n_{sa}=j^{sa}-j_{sa}-\mathbb{k}_3)} \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_i - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_s-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s+1}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - j_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_{sa})} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$







$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f z^{S_{j_s, j_{ik}, j_{sa}, j_i}} &= \sum_{k=1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_i = j_{sa} - j_{sa}^{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{j_{sa} = n + \mathbb{k}}^n \sum_{j_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{j_{sa} = n + \mathbb{k}_3 - j_{sa} + 1}^{n_{sa} + j_{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_{sa}^{sa+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \sum_{(n_{sa}+j_{sa}-j_{sa}^{ik})}^{(n_{sa}+j_{sa}-j_{sa}^{ik})} \\
& \frac{(n_{ik}+j_{ik}-j_{sa}^{ik})!}{(n_{sa}+j_{sa}-j_{sa}^{ik})!} \cdot \frac{(n_{sa}+j_{sa}-j_{sa}^{ik})!}{(n_{ik}+j_{ik}-j_{sa}^{ik})!} \\
& \frac{(n_{is}-n-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
& \frac{(n_{is}-n-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D - j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq j_i + s - \mathbf{n} \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + j_{sa} - j_{sa} \leq j_i \leq \mathbf{n} \wedge \\
& l_i - j_{sa}^{ik} + s \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D \geq \mathbf{n} < n \wedge I = j_i > 0 \wedge \\
& j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s > \mathbf{n} = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_i - j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}
\end{aligned}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{\mathbf{S}}_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_{ik}-j_s+1)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(j_s-1)} \sum_{j_i=l_i+n-D}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_s}^{(\cdot)} \sum_{j_i=j_s-j_{sa}^{ik}+1}^{(\cdot)} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1}$$

$$\sum_{n_{is}=\mathbf{n}+\mathbb{k}}^{(n_i-\mathbf{n}-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_{sa} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$fz^S j_s, j_{ik}, j_{sa}, j_{sa}^{ik} = \sum_{j_s=1}^{(j_s-1)} \sum_{(j_s=2)}^{(k+1)} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa})} \sum_{j_{sa}=l_i+n-j_{ik}-D-s}^{(j_{sa}+s-j_{sa})} \sum_{n_i=n}^{(n_i-1)} \sum_{(n_{is}=n+k_1+1)}^{(n_{is}-1)} \sum_{n_{ik}=n+k_2+k_3-j_{ik}+1}^{(n_{ik}-1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-k_2)}^{(n_{sa}+j_{sa}-j_i-k_3)} \sum_{(n_{sa}=n+k_3-j_{sa}+1)}^{(n_{sa}-1)} \sum_{n_s=n-j_i+1}^{(n_s-1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_s+j_{sa}^{ik}-j_{sa})}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_s+j_{sa}^{ik}-j_{sa})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}_1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{is}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{n_s=n-j_i+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$



$$\begin{aligned}
& \sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{ik}}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_{is}-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{(n_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{is}=n_{sa}+j_{sa}-j_i}^{(n_{sa}+j_{sa}-j_i)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_{sa} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{lk} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa} \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{lk} + 1 > l_s \wedge l_{sa}^{lk} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < n \leq D + l_s + s - n - 1 \wedge$$

$$D < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$fz^{\mathcal{S}_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+j_{sa}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_{is}-n_{is}+1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot$$

$$\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_i - j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{j_{sa}^{lk}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j_{sa}^{lk}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\
& \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=0}^{(l_s)} \sum_{i=0}^{D-s+1}$$

$$\sum_{j_k=j_s+j_{sa}^{ik}-1}^{j_s+j_{sa}^{ik}} (j_s+j_{sa}^{ik}+j_{sa}-j_{sa}^k) \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^{(n_i-\mathbf{n}+1)} \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-\mathbf{n}+1)} n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{j_s=1}^{j_s-1} \sum_{(j_s=2)}^{j_s-1} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{j_{ik}-1} \sum_{j_{sa}=j_i+j_{sa}^{ik}-1}^{j_{sa}-1} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^{l_s+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_i=n}^n \sum_{(n_i=n-1)}^{(n_i-1)} \sum_{(n_{is}=n+\mathbb{k}_1-1)}^{(n_{is}+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \sum_{n_s=n-j_i+1}^{(n_s-1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\frac{\sum_{k=1}^n \sum_{(j_s = z)}^{(l_s)} \sum_{\substack{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sc} \\ (j^{sa}=j_i-j_s)}}^{(\quad)} \sum_{l_s+s}^n}{\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}+j_s-j_{ik}-\mathbb{K}_1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1}} \frac{(n_i - n_{is} - 1)!}{(j_s - j_i + 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$



$$\begin{aligned}
& \sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_{sa}=j_i+j_{sa}-s)} \sum_{j_i=l_{sa}+n+s-D-j}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1}^{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{ik} - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - 1 - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n - l_{sa} \leq D - l_s + j_{sa} - n - 1 \wedge$$

$$D + n - l_s \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz^{\mathcal{S}}_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
&\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j_{ik}-j_{sa}^{ik}+1)} \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa}-j_{sa}^{lk}-j_i-\mathbb{k}_3)}^{(n_{ik}+j_{ik}-j^{sa}-j_{sa}^{lk}-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{lk}-j_i+1)}^{(n_{ik}+j_{ik}-j^{sa}-j_{sa}^{lk}-j_i-\mathbb{k}_3)} \\
&\sum_{(n_s=n-j_i+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{lk}-j_i+1)} \sum_{(n_s=n-j_i+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{lk}-j_i+1)} \\
&\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_s-2)! \cdot (n_i-n_{ik}-j_s+1)!} \cdot \\
&\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa}-n_s-1)!}{(j^{sa}-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
&\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)}
\end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_s^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - j_s^{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\
& \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_{ik}=l_{sa}}^{l_s + j_{sa}^{ik} - 1} \sum_{j_{sa}^{ik}=D - j_{sa}}^{(j_{sa}^{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i=j_{sa} + s - j_{sa}}^{(j_{sa}^{ik} + 1)}$$

$$\sum_{n_{ik}=\mathbf{n} + \mathbb{k}_1}^{(n_i - \mathbf{n} - 1)} \sum_{n_{is}=\mathbf{n} + \mathbb{k}_1 - j_s + 1}^{(n_i - \mathbf{n} - 1)} \sum_{n_{ik}=n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s=n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f z^S_{j_s, j_{ik}, j_{sa}^{ik}, j_i} \sum_{(j_s=2)}^{(j_s=j_{sa}-j_{sa})} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(j_{sa}=j_{ik}-j_{sa}^{ik})} \sum_{(j_i=j_{sa}^s-j_{sa})}^{(j_{sa}=j_{ik}-j_{sa}^{ik})} \\ & \sum_{n_i=n}^n \sum_{(n_{is}=n+\mathbb{k}_1+1)}^{(n_i-1)} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-1)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_i-1)} \sum_{n_s=n-j_i+1}^{(n_i-1)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa})}^{( )} \sum_{(j_{sa}=j_{sa}-j_{sa})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}+j_{sa}-j_{sa})}^{(n_{sa}+j_{sa}-j_{sa})} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$



$$\begin{aligned}
& \sum_{k=1}^{\sum_{j_s=l_{sa}+n-D-j_{sa}+1}} \sum_{(l_s)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-1)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n - 1 \wedge \\
& 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_i + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_i \leq j_i + j_{sa} - 1 \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D + j_{sa}^{ik} - n - l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge \\
& D \geq n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} = j_{sa}^i \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s, \{j_{sa}^{ik}, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq 6 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$



$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(j^{sa}=j_i+j_{sa}-s)} \sum_{j_i=l_{ik}+s+n-D-j_{ik}}^{l_s+s-1} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
 &\sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_3)} \sum_{(n_s=n-j_i+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{ik}+1)} \\
 &\frac{(n_i-n_{is}-1)!}{(j_s+2)! \cdot (n_{is}-n_{ik}-j_s+1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa}-n_s-1)!}{(j^{sa}-j_{sa}^{ik}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(j^{sa}=j_i+j_{sa}-s)} \sum_{j_i=l_s+s}^n
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_i - j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{ik}+s+\mathbf{n}-D-j_{sa}^{ik}}^{l_s+s-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \leq j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n - 1)!}{(n_s + j^{sa} - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{j_s=j^{sa}+s-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_{ik}=n+l_k}^{(n_i-1)} \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}^{(n_i-1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(n_i-1)} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_{k3}}^{(n_i-1)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k1} - l_{k2} - l_{k3})!}{(n_i - \mathbf{n} - l_{k1} - l_{k2} - l_{k3})!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$f_Z^S(j_s, j_{ik}, j_{sa}, j_{sa}^{ik}) = \sum_{s=1}^{j_s^{ik}+1} \sum_{(j_s=2)}^{j_s^{ik}+1} \sum_{j_{ik}=l_{ik}+n}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}^{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik})} \sum_{j_i=j_{sa}+s-j_{sa}}^{(j_i=j_{sa}+s-j_{sa})} \sum_{n_i=n}^n \sum_{(n_{is}=n+\mathbb{K}_1+s+1)}^{(n_i-j_s-1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)}^{(n_{sa}=n+\mathbb{K}_3-j_{sa}+1)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \frac{\sum_{j_{ik}=l_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_{is}=j_{sa}-j_{sa}^{ik}}^{( )}}{\sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+l_k-j_s}^{n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_{sa}-l_k)}^{(n_{ik}+j_{ik}-j_{sa}-l_k)} \sum_{n_{sa}=n_{ik}-j_i-l_k}^{n_{sa}=n_{ik}-j_i-l_k} \sum_{(n_{sa}+l_k-j_{sa}^{ik})}^{(n_{sa}+l_k-j_{sa}^{ik})} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1}} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$



$$\sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\infty)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\infty)} \sum_{j_i=j_{sa}+s-1}^{(\infty)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-j_{ik}-\mathbb{k}_1}^{(\infty)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\infty)} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i-\mathbb{k}_3)}^{(\infty)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n - 1 \leq l_s \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D < n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} &= \sum_{k=1}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)} \\
&\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
&\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2}-j_s-j_i-l_{k_3})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2}-j_s-j_i-l_{k_3})} \sum_{(n_{sa}=n+l_{k_3}-j_{ik}+1)}^{(n_{sa}=n+l_{k_3}-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{(n_s=n-j_i+1)} \\
&\frac{(n_{is}-n_{is}+1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
&\frac{(n_{ik}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-l_{k_1})!} \cdot \\
&\frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
&\frac{(n_{sa}-n_s-1)!}{(-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \\
&\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_i - j_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j^{sa}=j_{sa}+1)}^{l_s+s-1} \sum_{j_i=s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} + l_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \sum_{j_i=l_s+s}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s}$$

$$\sum_{j_{ik}=j_s-j_{sa}}^{j_{ik}} \sum_{j^{sa}=j_i+j_{sa}-s}^{j^{sa}} \sum_{j_i=s+1}^{l_s+s-1}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\ )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_s} \sum_{j_{sa}=j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=j^{sa}+s-j_{sa}}^{j_{sa}-1} l_i \\ & \sum_{n+k}^{(n_i-j_s)} \sum_{(n_{is}=n+k-j_s+1)}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{ik}=n+k_2+k_3-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \sum_{(n_{sa}=n+k_3-j^{sa}+1)}^{n_{sa}+j^{sa}-j_i-k_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{k=0}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_s+j_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_{is}+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+1)+j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \sum_{n_s=\mathbf{n}-j_i+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{2}} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{lk} - j_{sa}}^{\binom{D}{2}} \sum_{(j^{sa} = j_{sa} + 1)}^{\binom{D}{2}} \sum_{j_{ik} = j^{sa} + s - j_{sa}}^{\binom{D}{2}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{\binom{D}{2}} \\
& \sum_{(n_{is} = n_{ik} + j_s - j_{sa} - \mathbb{k}_2)}^{\binom{D}{2}} \sum_{(n_{is} = n_{ik} + j_s - j_{sa} - \mathbb{k}_3)}^{\binom{D}{2}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq 1 \wedge l_i \leq 2 + s - 2 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
&\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-}^{l_i} \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-j_i-\mathbb{k}_3)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}-1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-j_i-\mathbb{k}_3)} \sum_{n_s=n-j_i+1}^{(n_{sa}=n+\mathbb{k}_3-j^{sa}-1)} \\
&\frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
&\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa}-n_s-1)!}{(j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
&\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_2+l_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \\
& \sum_{(n_{sa}=n+l_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-l_1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{sa}-n_{ik}-j_{ik}-l_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_2-1)!}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{sa}-n_{sa}-j_{sa}-l_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)!(n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^s \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^{l_i}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(D-j_i-\mathbf{n}-l_i)(\mathbf{n}-j_i)!}{(D-j_i-\mathbf{n}-l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_s \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_s - j_{sa} = l_{ik} \wedge j_s + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+l_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \\
& \frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - l_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{is}=n+l_1-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{\mathbf{S}}_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{l_s+s-1} \sum_{j_i=l_i+\mathbf{n}-D}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_s + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i - n_s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_{(j_{sa}^s, j_{sa}^{ik}, j_{sa}^i)} &= \sum_{k=1}^{(j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_{sa}^{ik} + 1)} \\ &\sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(l_i + j_{sa} - D - s - 1)} \sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})} \sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})} \sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})} \\ &\sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(n_i - j_s + 1)} \sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(n_{is} + j_s - j_{ik} - \mathbb{K}_1)} \\ &\sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2)} \sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(n_{sa} + j_{sa} - j_i - \mathbb{K}_3)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!} \cdot \\
& \frac{(l_i - 1)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{j_{ik}=\mathbf{n}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_s-1)} \sum_{(j^{sa}=\mathbf{n}+j_{sa}-D-s)}^{(j_{ik}-j_{sa}^{lk}+1)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{j_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_s)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=0}^{(l_s)} \sum_{j_s=2}^{(l_s)} \sum_{j_{ik}=j^{sa}+l_{ik}-j_{sa}}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_{sa})} \sum_{n_i=n+l_k}^{(n+l_k+1)} \sum_{n+l_k-j_s+1}^{(n+l_k+1)} \sum_{n_{ik}=n+l_k+l_3-j_{ik}+1}^{(n+l_k+1)} \sum_{n_{ik}=n+l_k+l_3-j_{ik}+1}^{(n+l_k+1)} \sum_{n_{sa}=n+l_k+l_3-j_{sa}+1}^{(n+l_k+1)} \sum_{n_s=n-j_i+1}^{(n+l_k+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - l_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_2)!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \binom{(\quad)}{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{l}_s+j_{sa}-1)} \sum_{j_{ik}^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}_1}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} - 2 \wedge$$

$$1 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s + j_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} - \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$\mathbf{n} - \mathbf{l}_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_s-1}^{n_{is}+j_s-j_s-\mathbb{k}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\sum_{(j^{sa}-j_{sa}^{ik}-1)}^{(j^{sa}-j_{sa}^{ik}-1)} \sum_{(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_i=j^{sa}+s-j_{sa}}} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n}+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
& \frac{(D-\mathbf{n})!}{(D+j_i-\mathbf{n}-l_i)! \cdot (n-l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - l_i + j_{sa} - s > j_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i+\mathbf{n}-D-s)} \sum_{(j_s=2)}^{\quad}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_i + j^{sa} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_i + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_s + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} S: j_{sa}^{ik}, j_{sa}^s, j_i &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\ &\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s+1}^{l_s+s-1} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(j_i + j_s - \mathbf{n} - l_i - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \cdot \\
& \sum_{j_{sa}=l_{sa}+1}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^{l_i} \cdot \\
& \sum_{n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \cdot \\
& \sum_{(n_{sa}=n+l_k-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{l_s-1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-j_{sa}}^{l_s-j_s-1} \sum_{j_i=s+1}^{l_s+s-1} \\
& \sum_{j_{ik}=n+l_{ik}-j_{sa}-j_{sa}^{ik}-j_s}^n \sum_{n_{is}=n+l_{ik}-j_{sa}-j_{sa}^{ik}-j_s-1}^{j_s+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2}} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_{k3}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k1} - l_{k2} - l_{k3})!}{(n_i - n - l_{k1} - l_{k2} - l_{k3})!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{l=1}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{s=2}^{j_{sa} + j_{sa}^{ik} - j_{sa} - (j_{sa} - 1)} \sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} - (j_{sa} - 1)}^{j_{sa} + j_{sa}^{ik} - j_{sa} - (j_{sa} - 1)} \sum_{n_i = \mathbf{n} + \mathbb{k} (n_{is} + \mathbb{k} - j_s + 1)}^{(n_i - 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{ik} + j_{sa} - j_{sa}^{ik} - \mathbb{k}_2)} \sum_{n_{sa} = \mathbf{n} - j_i + 1}^{n_{sa} + j_{sa} - j_i - \mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$



$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \frac{(l_{ik})}{j_{ik}=j_{sa}^{ik}+1} \frac{(l_{sa})}{(j^{sa}=l_s+j_{sa}^{ik}-j_{ik}-j_{sa})} \cdot \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{ik}} \frac{(n_i - j_s + 1)!}{(j_s - l_k)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - l_k - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k2} - 1)!}{(j_{ik} - l_k - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k2})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)} \sum_{j_i=j_{sa}+s-j_{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{is}=n_{sa}+j_{sa}-j_i)}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-2 \cdot s-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-j_i-\mathbb{k}_1-j_{sa}-\mathbb{k}_3)!}.$$

$$\frac{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{lk}-j_{sa}-j_{ik}-3 \cdot s)!}{(l_s-2)! \cdot (j_s-2)!}.$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}.$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$D \geq n < n \wedge l_s > l_i \wedge l_i \leq D+s-1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_{sa}+j_{sa}^{lk}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j_{sa} \leq j_i+j_{sa}-1 \wedge j^{sa}+s-j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik}-j_{sa}^{lk}+1 > l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} > l_{ik} \wedge l_i+j_{sa}-s=l_{sa} \wedge$$

$$D \geq n < n \wedge \mathbb{k} > \mathbb{k}_1 \wedge$$

$$j_{sa}^{lk} < j_{sa}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^s < j_{sa}^{ik}-1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{lk}, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_i=j^{sa}+s-j_{sa}}} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
 & \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
 \end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_s - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j^{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j^{sa} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik}) \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_i - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{(n_i - 1)} \sum_{s=0}^{(n_s - 1)} \sum_{i_{ik}=j^{sa}+j_{sa}^{ik}-j_s}^{j_{ik}-j_s-j_{sa}^{ik}} \sum_{j_i=l_i+n-D}^{l_s+s-1} \\
& \sum_{n=n+\mathbb{k}}^{(n_i-1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-1)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(n_i-1)} \\
& \frac{(n_i - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f z^S j_s, j_{ik}, j_{sa}^{ik} = & \sum_{j_s=1}^{\mathbb{k}+1} \sum_{(j_s=2)}^{\mathbb{k}+1} \\ & \sum_{j_{ik}=\mathbf{l}_{ik}+\mathbf{n}-D}^{\mathbf{l}_{ik}+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s}^{\mathbf{l}_i+j_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}^{\mathbf{l}_s+j_s-j_{ik}-\mathbb{k}_1} \\ & \sum_{n_i=\mathbf{n}}^{\mathbf{n}} \sum_{(n_i=\mathbf{n}-1)}^{(n_i-\mathbf{n}+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+1)}^{(n_{is}-\mathbf{n}+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ & \frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$







$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \quad \quad \quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s, \quad \quad \quad)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}-j_s+1, \quad \quad \quad)}^{(n_i-j_s+1)} \sum_{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1, \quad \quad \quad)}$$

$$\sum_{(n_{sa}=n_{ik}+j_s+j_{sa}-\mathbb{k}_2, \quad \quad \quad)}^{(\quad)} \sum_{(n_{sa}=j_s-j_{ik}-\mathbb{k}_3, \quad \quad \quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$\geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_s \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_i - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=l_i+s-j_{sa}}^{(l_i+s-j_{sa})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i+1)}^{(n_{is}+j_s-j_{sa}-\mathbb{k}_1)} \sum_{(n_{sa}=n_{is}-j^{sa}+1)}^{(j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_{is}-n_{sa}-\mathbb{k}_1-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{sa}-\mathbb{k}_1-1)!}{(n_{is}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_i-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{\mathbf{l}_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-1} \sum_{(j_i=\mathbf{n}-j_i-\mathbb{k}_3)}^{j_i-\mathbb{k}_3} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}-1)}^{n_{sa}-j^{sa}-1} \sum_{n_s=\mathbf{n}-j_i-} \\
& \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(\mathbf{l}_s-2)!}{(\mathbf{l}_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(\mathbf{l}_{ik}-\mathbf{l}_s-j_{sa}^{ik}+1)!}{(j_s+\mathbf{l}_{ik}-j_{ik}-\mathbf{l}_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(\mathbf{l}_{sa}+j_{sa}^{ik}-\mathbf{l}_{ik}-j_{sa})!}{(j_{ik}+\mathbf{l}_{sa}-j^{sa}-\mathbf{l}_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-\mathbf{l}_i)!}{(D+j_i-\mathbf{n}-\mathbf{l}_i)! \cdot (\mathbf{n}-j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=2)}^{(\mathbf{l}_s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_k-1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_k-1-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k2})} \sum_{n_s=n+l_k-1-j_i-1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-l_{k2}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_s-n_{sa}-j^{sa}-l_{k2})!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{D}{j_s}} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i - n - l_s - n - j_i)!}{(D - l_i - n - l_s - n - j_i)!}.$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa}^{sa} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - l_i - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k}_1 + 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^{sa} \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \mathbb{k}_3, j_{sa}\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(j_i + j^{sa} - 1)! \cdot (n_{sa} + j_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_s + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_s^{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{\mathbf{S}}_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+\mathbf{n}+s-D-j_{sa}}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_s - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_s+s}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_i - j_s)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = j^{sa} - j_{sa}^{ik} - j_{sa}}^{(\quad)} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{(\quad)} \sum_{j_i = l_{sa} + n + s - D - j_{sa}}^{l_s + s - 1} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{sa}, j_i}^{sa, j_i} &= \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \\ &\sum_{i_k=l_{ik}+\mathbf{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=l_{sa}+\mathbf{n}-D)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(n + j_i - n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{l_s} \sum_{(j_s=2)}^{(l_s)} \cdot \\
& \sum_{j_{ik}}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \cdot \\
& \sum_{n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \cdot \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1} (j_s=j_{ik}-j_{sa}^{ik}+1)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} (j^{sa}+j_{sa}^{ik}-j_{sa}+n-D) \sum_{j_i=j^{sa}+s-j_{sa}}^{j_i=j^{sa}+s-j_{sa}} (j_i=j^{sa}+s-j_{sa})$$

$$\sum_{j_{ik}=n+\mathbb{k}_1}^n (n_{is}=n+j_{sa}^{ik}-j_s+1) \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{j_s+1} (n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1)$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{j_s+1} (n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{j_s+1} (n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{s} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$l_i \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$



$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_{sa}, j_i}^S = \sum_{k=1}^{\mathbb{k}} \sum_{j_{sa}=l_{sa}+n}^{(j_{sa}^{ik}+1)} \sum_{j_{ik}=n-D}^{l_{sa}+n+j_{sa}^{ik}-D-j_s-1} \sum_{j_i=n+j_{sa}-j_{ik}-\mathbb{k}_1}^{(n+j_{sa}-j_{ik}-\mathbb{k}_1)} \sum_{n_{is}=n+\mathbb{k}_1}^n \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_s+1)} \sum_{n_s=n-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$



$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(\mathbf{n}+j_{sa}-s)} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{(j_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \\
& \sum_{(n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \\
& \sum_{(n_{sa}+j_{sa}-\mathbb{k}_3-j^{sa})}^{(n_{sa}+j_{sa}-\mathbb{k}_3-j^{sa})} \sum_{n_s=\mathbf{n}-j_i+1}^{(n_{sa}+j_{sa}-\mathbb{k}_3-j^{sa})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} + \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \sum_{j_{ik}=\mathbf{l}_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_{ik}^{sa}=\mathbf{l}_s+j_{sa}-j_{sa}^{ik}}^{j_{ik}^{sa}+s-j_{sa}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{ik}^{sa})}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2}^{(n_{is}+j_s-\mathbb{k}_1)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{ik}^{sa})}^{(n_{ik}+j_{ik}-j_{sa}^{sa})} \sum_{(n_{sa}+j_{sa}-j_{i-1})}^{(n_{sa}+j_{sa}-j_{i-1})} \frac{(n_{ik}+j_{ik}-j_{sa}^{sa})!}{(n_{sa}+\mathbb{k}_3-j_{ik}^{sa})!} \frac{(n_{sa}+j_{sa}-j_{i-1})!}{(n_{is}-1)!} \frac{(j_{ik}-j_{sa}^{sa}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}{(j_{ik}-j_{sa}^{sa}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \frac{(n_{is}-n_{sa}-\mathbb{k}_1-1)!}{(j_{ik}-j_{sa}^{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{sa}-\mathbb{k}_2)!} \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{sa}^{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{sa}-\mathbb{k}_2)!} \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} -$$



$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_i-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}+j^{sa}-j_i-}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} - l_{sa} \leq l_i + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz_{j_s, j_{ik}, j^{sa}, j_i}^S &= \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})} \\
&\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j}^{(n+j_{sa}-s)} \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{sa}+j_{ik}-j_i-\mathbb{k}_3)} \\
&\sum_{(n_{sa}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{ik}+1)} \sum_{n_s=n-j_i}^{(n_{sa}+j_{ik}-j_i-\mathbb{k}_3)} \\
&\frac{(n_i - n - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
&\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
&\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
&\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
&\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
&\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
&\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
&\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{is}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{is}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_i-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D + j_i - \mathbf{n} - l_i)(\mathbf{n} - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_i - s + 1 > l_s \wedge \\
& l_i \leq D + s - \mathbf{n})) \wedge \\
& D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \{s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq 6 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$



$$\begin{aligned}
fz S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
&\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_i+j_{sa}-s)} \sum_{j_i=s}^{l_s+s-1} \\
&\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
&\frac{(n_s - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
&\frac{(n_{ik} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
&\frac{(n_{sa} - n_s - 1)!}{(j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
&\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
&\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
&\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
&\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
&\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
&\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \sum_{j_i=l_s+s}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)} \sum_{n_s=n-j_i}^{n_s=n-j_i} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\begin{aligned} & ((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge l_i \leq D + s - \mathbf{n} \wedge \\ & 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_i \leq j_s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge \\ & j_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} \leq j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \vee \\ & ((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge \\ & l_i - s + 1 > l_s \wedge \\ & l_i \leq D + s - \mathbf{n})) \wedge \end{aligned}$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sq} = j_{sq}^i - 1 \wedge j_{sq}^{ik} < j_{sq} - 1 \wedge j_{sq}^s < j_{sq}^{ik} - 1 \wedge$$







$$\begin{aligned}
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=\mathbf{l}_s+j_{sa})}^{(l_{sa})} \sum_{j_{ik}=\mathbf{l}_i+j_{sa}-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j_{sa}-1)} \sum_{(n_{sa}+j_{sa}-j_i-\mathbb{k}_1)}^{(n_{sa}+j_{sa}-j_i-1)} \\
& \sum_{(n_{sa}+j_{sa}-j_i-\mathbb{k}_2)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3-j_i+1)} \sum_{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3-j_i+1)}^{(n_{sa}+j_{sa}-j_i-1)} \\
& \frac{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1-1)! \cdot (n_{sa}+j_{sa}-j_i-\mathbb{k}_1-1)!}{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1-2)! \cdot (n_{sa}+j_{sa}-j_i-\mathbb{k}_1-2)!} \cdot \\
& \frac{(n_{is}-\mathbf{l}_s-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_i-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j_{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(l_s+j_{sa}-1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{(n_{sa}=n_{sa}+j_{sa}^{sa}-j_i)}^{(\cdot)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_2 + s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s \leq 1 \wedge l_i \leq D + s - n \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n \wedge 1 > 1 \wedge l_s \leq D - n + 1 \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_i - s + 1 > l_s \wedge \\
& l_i \leq D + s - n)) \wedge
\end{aligned}$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{ik}-j_{sa})}^{(l_{sa})} \sum_{(j_{ik}=j_{sa}^{ik}-j_{sa})}^{l_i}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_{ik}-1)}^{(n_i-j_s+1)} \sum_{(n_{is}+j_s-j_{ik}-1)}^{(n_{is}+j_s-j_{ik}-1)}$$

$$\sum_{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)}$$

$$\sum_{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}=n_{sa}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_{sa}^{sa}=s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa})}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+1}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j_{sa}^{sa})}^{(n_{ik}+j_{ik}-j_{sa}^{sa})} \sum_{(n_{sa}+j_{sa}-j_i-1)}^{(n_{sa}+j_{sa}-j_i-1)} \\
& \frac{(n_{ik}+j_{ik}-j_{sa}^{sa})!}{(n_{sa}+j_{sa}-j_i-1)!} \cdot \frac{(n_{is}-1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{sa}-\mathbb{k}_1-1)!}{(j_{ik}-j_{sa}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_i-j_{ik}-\mathbb{k}_1}^{( )}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{sa}+j^{sa}-j_i-}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$((D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$j_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} < j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s \leq D - \mathbf{n} + 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n})) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z^S S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_s)} \sum_{j_s=j_{ik}+j_{sa}+j_i}^{(l_s)} \frac{(l_s - j_s)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_{ik}=j_{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(j_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{( )} \sum_{j_{ik}=j_{sa}+s-j_{sa}-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

$$((D \geq \mathbf{n} < n \wedge \mathbf{n} > 1 \wedge l_j \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - s + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} - l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$D + s - \mathbf{n} - l_i > \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_i - s + 1 > l_s \wedge$$



$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}^{sa}, j_i}} = \sum_{k=1}^{(j_{sa}^{ik}+1)} \sum_{j_s=0}^{(j_i+j_{sa}-1)} \sum_{l_s=0}^{l_s+s-1} \sum_{j_{ik}=l_{ik}+n}^{j_{sa}+i k - j_{sa}} \sum_{j_{sa}=l_{sa}+1}^{j_i+j_{sa}-1} \sum_{n=n+k}^n \sum_{n_{is}=n+k_1+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{ik}=n+k_2+k_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n+k_3-j_{sa}+1}^{n_{sa}+j_{sa}-j_i-k_3} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-k_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_i=1}^{l_{ik}} \sum_{(j^{sa}=1) \dots (\mathbf{n}-D)}^{(l_{sa})} \sum_{j_i=l_s+s}^{(l_s)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i=\mathbf{n}+\mathbb{k}-j_s+1) \dots (n_i=\mathbf{n}+\mathbb{k}-j_s+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)} \sum_{n_s=\mathbf{n}-j_i+1}^{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-j_{ik})}^{( )} \sum_{j_i=n-D}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_i+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{s} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^{s} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$



$$\mathbf{l}_i - s + 1 > \mathbf{l}_s \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_Z \mathcal{S}_{j_s, j_{ik}, j_{sa}, j_{is}}^{(j_s-1, j_{ik}-1, j_{sa}-1, j_{is}-1)} &= \sum_{j_s=1}^{(j_s-1)} \sum_{(j_s=2)}^{(j_s-1)} \\ &\sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}-n+j_{sa}^{ik}-1} \sum_{(j_{sa}=n-D)}^{n} \sum_{j_i=l_i+n-D}^{n} \\ &\sum_{n_i=n}^n \sum_{(n_i=n-1)}^{(n_i-1)} \sum_{n_{is}=n+\mathbb{K}_1-s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2} \\ &\sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}+1)}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \sum_{n_s=n-j_i+1}^{(n_i-n_{is}-1)!} \\ &\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ &\frac{(n_{is}-n_{ik}-\mathbb{K}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik}-n_{sa}-\mathbb{K}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \\ &\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\ &\frac{(\mathbf{l}_s-2)!}{(\mathbf{l}_s-j_s)! \cdot (j_s-2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_s - j_{ik} - 1)} \sum_{j_{ik}=l_{ik}+n-j_{sa}^{ik}-j_{sa}}^{(l_s - j_{sa}^{ik} - 1)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n-l_{ik}-\mathbb{k}_1}^n \sum_{(n_{is}=n+\mathbb{k}_1-1)}^{(n_{is}-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}-1)} \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{sa}+j_{sa}-j_{ik}-\mathbb{k}_1)} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_s)} \frac{1}{(j_s - k)!} \cdot \\
& \sum_{j_{ik}=l_{ik}+n-D}^{(l_{sa})} \sum_{j_i=j_{ik}+s-j_{sa}}^{(l_{sa})} \sum_{j_s=j_{ik}+s-j_{sa}}^n \frac{1}{(j_s - j_{ik} - 1)!} \cdot \\
& \sum_{n_{ik}=n+\mathbb{k}_1}^n \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{is} - n + \mathbb{k}_1 - 1)!} \cdot \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \frac{1}{(n_{ik} - n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)!} \cdot \\
& \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}-\mathbb{k}_2}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{1}{(n_{sa} - n + \mathbb{k}_3 - j^{sa} + 1)!} \cdot \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{1}{(n_s - n - j_i + 1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}} \sum_{l_s=n+j_{sa}-D}^{(l_s+l_i-1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(j_i+j_s+1)} \sum_{n_i=n+l_k}^{(n+l_k-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}^{(n_{ik}+j_{ik}-l_{k2})} \sum_{n_s=n_{sa}+j_{sa}-j_i-l_{k3}}^{(n_s+n_{ik}+j_{ik}-l_{k2})} \frac{(n_i + 2 \cdot j_i + j_{sa}^{lk} - j_{sa} - j_s - j_{ik} - 3 \cdot s - l_{k1} - l_{k2} - l_{k3})!}{(n_i + n - l_{k1} - l_{k2} - l_{k3})!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^{lk} - j_{sa} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}^{sa}, j_i} &= \sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{(j_s=1)} \\ &\sum_{j_i=l_i+n-D}^{l_i+n+j_{sa}^{ik}-D-1} \sum_{j_{sa}=l_{sa}+n-D}^{(l_{sa})} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n_i=n+\mathbb{K}-j_s+1}^n \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &\sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!} \cdot \\
& \frac{(D - j_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{i=2}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik}=l_{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{j_{sa}=j_{ik}+j_{sa}^{ik}-D-s}^{(l_s-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_{is}=n+l_k}^n \sum_{(n_i-j_{ik})}^{(n_i-j_{ik})} \sum_{n_{ik}=n+l_k+j_s+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_{k3}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k2})} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_{k3}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k2})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!} \cdot \\
& \frac{(D - j_i - 1)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}} \sum_{j_i=j^{sa}+s-j_{sa}}^n \sum_{j_{is}=\mathbf{n}+\mathbb{k}_1-j_s}^{n_{is}-j_s} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{l_s + j_{sa}^{ik} - 1} \sum_{j_{ik}=l_i + n + j_{sa}^{ik} - j_s}^{j_{sa} + j_{sa}^{ik} - 1} \sum_{j_{sa}=j_{ik} - j_{sa}^{ik}}^{j_{sa} + j_{sa}^{ik} - j_{sa}} \sum_{j_i=j^{sa} + s - j_{sa}}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \\
& \sum_{n_{ik}=n + \mathbb{k}_1}^n \sum_{n_{is}=n + j_s + 1}^{(n - j_s + 1)} \sum_{n_{ik}=n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n - j_s + 1)} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{(n - j_s + 1)} \sum_{n_s=n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(n - j_s + 1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j^{sa} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j^{sa} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$(l_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3) < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$



$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, \dots, j_{sa}, j_i} &= \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{(l_i + \mathbf{n} - D - s)} \\ &\sum_{j_{ik}=l_{ik} + \mathbf{n} - D}^{(l_{sa})} \sum_{(j_{sa}=l_{sa} + \mathbf{n} - D)}^{(l_{sa})} \sum_{j_i=l_i + \mathbf{n} - D}^{\mathbf{n}} \\ &\sum_{n_i=\mathbf{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is}=\mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik}=\mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{(n_{sa}=\mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s=\mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j - l_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i - (n - j_i))!} \cdot \\
& \sum_{k=0}^{\infty} \sum_{i=l_i+n-D-s+1}^{\infty} \\
& \sum_{l_{ik}=j_s+j_{sa}}^{l_{ik}} \sum_{l_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n+l_k}^{(n_i-j_s+1)} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{n_{sa}=n+l_{k3}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k2})} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_{k3}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - l_{k2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k2})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{j_i=j^{sa}+s-1}^{j_i=j^{sa}+s-1} \\
& \sum_{j_s=j_s+j_{sa}^{ik}-1}^{j_s=j_s+j_{sa}^{ik}-1} \sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}^{ik}}^{j_{ik}=j^{sa}+j_{sa}-j_{sa}^{ik}} \sum_{j_i=j^{sa}+s-j_{sa}}^{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+1}^{(n_i-1)} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}=n+l_k-j_s+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}^{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_{k3}}^{( )} \\
& \frac{(n_i - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k1} - l_{k2} - l_{k3})!}{(n_i - \mathbf{n} - l_{k1} - l_{k2} - l_{k3})!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$f_z S_{j_{sa}, j_{ik}, j_{sa}^{ik}, j_{sa}^i, j_{sa}^s, j_{sa}^{ik} - j_{sa} - 1} = \sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \sum_{l_i=1}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \sum_{j_{ik}=1}^{(\cdot)} \sum_{j_{sa}=1}^{(\cdot)} \sum_{n_{sa}=n+k_3-j_{sa}+1}^n \sum_{n_{ik}=n+k_2+k_3-j_{ik}+1}^{(n_i-j_{ik}-k_1+1)} \frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(l_i + j_{sa} - j_i - l_{sa})! \cdot (j_i - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$



$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\quad)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}$$

$$\frac{(D + n - n - l_i)! \cdot (n - s)!}{(D + n - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = l_s \geq 0 \wedge$$

$$j_s = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, \dots \} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=s}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - \mathbb{K}_3 - j_i - 1)!}{(n_s - j_i - \mathbf{n} - \mathbb{K}_3 - j_i)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D - j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1)}^{(\quad)} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{K}_3)}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(D - \mathbf{l}_i)!}{(D + s - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s = 1 \wedge \mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)} \sum_{j_i=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)} \sum_{j_i=s}^{l_{sa}+s-j_{sa}} \\ \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\ \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{( )} \sum_{j_s=1}^{( )} \sum_{j_{ik}=j_{sa}}^{\sum_{j_s=1}^{( )}} \sum_{j_i=s}^{\sum_{j_s=1}^{( )}} \sum_{\mathbb{k}_1=0}^n \sum_{\mathbb{k}_2=0}^{( )} \sum_{\mathbb{k}_3=0}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq n + s - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^s - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq j_{sa} + j_{sa} - s \wedge j_{sa}^s + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(l_i+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{ik}+j_{ik}-j^{sa}}^{(n_{sa}+j^{sa}-l_i-\mathbb{k}_3)} \sum_{n_{sa}=n+\mathbb{k}_3-j_{ik}+1}^{(n_{sa}+j^{sa}-l_i-\mathbb{k}_3)} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot$$

$$\frac{(n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}-j_{sa})!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -$$

$$\sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \sum_{j_i=s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{( )}$$



$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{(D - \mathbf{n} - l_i)!}{(D + s - \mathbf{n} - l_i)!} \cdot (n - s)!$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik} - \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i}^S = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$



$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - n_s - j_i)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_s=j_{sa}}^{(\cdot)} \sum_{j_i=s}^{(\cdot)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(\cdot)}$$

$$\frac{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$



$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{s=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{sa}=j_{sa}^{ik}}^{(l_{sa})} \sum_{j_{sa}=j_{sa}^{ik}}^{l_i} \sum_{n_{sa}=n_{sa}-j_{sa}+1}^n \sum_{n_{ik}=n_{ik}-j_{ik}+1}^{j_{ik}-\mathbb{k}_1+1} \sum_{n_{ik}=n_{ik}-j_{ik}+1}^{j_{ik}+1} \sum_{n_{sa}=n_{sa}-j_{sa}+1}^{n_{sa}+j_{sa}-j_{ik}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{sa}^{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j_{sa}-l_{ik})! \cdot (j_{sa}-j_{sa}^{ik})!} \cdot \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)}$$



$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\quad)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\quad)}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}.$$

$$\frac{1}{(n+2 \cdot j_i+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!}$$

$$\frac{(D+\mathbf{n}-n-l_i)! \cdot (n-s)!}{(D+\mathbf{n}-n-l_i)! \cdot (n-s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = l_s \geq 0 \wedge$$

$$j_s = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, \dots \} \wedge$$

$$s \geq 6 \wedge \mathbf{n} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{lk}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - j_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - j_i - j_s - 1)!}{(n_s - j_i - \mathbf{n} - j_i - j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(l_{sa} + j_{sa} - j^{sa} - l_{ik} - j_i - j_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{\binom{D}{j_s}} \sum_{j_i=s}^{\binom{D}{j_s}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{\binom{D}{j_s}} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\binom{D}{j_s}} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{\binom{D}{j_s}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} .
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\sum_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=s}^{l_i} \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \sum_{n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)} \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$



$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=1}^{(n)} \sum_{(j_s=1)}^{(n)}$$

$$\sum_{j_{ik}=j_s}^{(n)} \sum_{(j_{sa}=j_{sa})}^{(n)} \sum_{j_i=s}^{(n)}$$

$$\sum_{n_i=1}^{(n)} \sum_{(n_{ik}=n_i - j_{ik} - \mathbb{k}_1 + 1)}^{(n)}$$

$$\sum_{n_{ik}=n_{ik} + j_{ik} - \mathbb{k}_2}^{(n)} \sum_{(n_s=n_{sa} + j_{sa} - j_i - \mathbb{k}_3)}^{(n)}$$

$$\frac{(n_s + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i)! \cdot (n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n_s + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}.$$

$$D \geq n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=s}^{l_{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}-\mathbb{k}_3)}$$

$$\frac{(n_i-j_{ik}-\mathbb{k}_1+1)}{(j_{ik}-j_{sa}^{ik}-1)! \cdot (n_i-j_{ik}-j_{sa}-\mathbb{k}_1+1)!} \cdot$$

$$\frac{(n_{ik}-j_{ik}-\mathbb{k}_2+1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot$$

$$\frac{(l_{ik}-j_{sa}^{ik})!}{(l_{ik}-j_{ik})! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} -$$

$$\sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)}$$



$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{(D - \mathbf{n} - l_i)!}{(D + s - \mathbf{n} - l_i)!} \cdot (n - s)!$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik} - \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s}^{l_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$



$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - n_s - j_i)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i - j_i)!} \cdot$$

$$\sum_{j_s=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_s=j_{sa}}^{(\cdot)} \sum_{j_i=s}^{(\cdot)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(\cdot)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$







$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\quad)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\quad)}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}.$$

$$\frac{1}{(n+2 \cdot j_i+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!}$$

$$\frac{(D+n-n-l_i)! \cdot (n-s)!}{(D+n-n-l_i)! \cdot (n-s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa}^s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s = l_{ik} \wedge l_{sa} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = l_s \geq 0 \wedge$$

$$j_s^i = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, n\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fzS_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)!} \cdot \\
& \frac{(n_{sa} - j_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - j_i - 1)!}{(n_s - j_i - \mathbf{n} - j_i - 1)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik}^{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D - j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1)}^{(\quad)} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{K}_3)}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(D - \mathbf{l}_i)!}{(D + s - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s = 1 \wedge \mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} \delta_{j_s, j_{ik}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\ &\sum_{j_i=j^{sa}+j_{sa}^{ik}-j_{sa}}^{k+j_{sa}-j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\ &\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ &\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{( )} \sum_{j_s=1}^{\Delta} \sum_{j_{ik}=j_{sa}^{ik}}^{\sum} \sum_{j_i=j_s}^{\sum} \sum_{k=1}^n \sum_{l_k=(n_{ik}-j_{ik}-l_{ik}-k_1+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{sa}-k_2}^{\sum} \sum_{n_{sa}+j_{sa}-j_i-k_3}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - k_1 - k_2 - k_3)!}{(n_i - k_1 - k_2 - k_3)!} \cdot \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq n + s - 1 \wedge$$

$$1 \leq j_s < j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^s - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_s = 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$



$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}^{ik}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+j_{ik}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}^{ik}+1}^{n_{ik}+j_{ik}-j^{sa}+1} \sum_{(n_s=\mathbf{n}-j_i+j_{sa}^{ik}-\mathbb{k}_3)}^{(j^{sa}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\frac{(n_i - \mathbf{n} - \mathbb{k}_1 - 1)!}{(j_{sa}^{ik} - 2)! \cdot (n_i - l_{ik} - j_{sa}^{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_i - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_i - n_s - 1)!}{(n_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \sum_{j_i=s}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}-j_{ik}-\mathbb{k}_1+1)}^{( )}$$



$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{(D - \mathbf{n} - l_i)!}{(D + s - \mathbf{n} - l_i)!} \cdot (n - s)!$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik} - \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$



$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - n_s - j_i)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \mathbf{n} - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i - j_i)!} \cdot$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_s=j_{sa}}^{(\cdot)} \sum_{j_i=s}^{(\cdot)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(\cdot)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$\mathbf{n} \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$



$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{s=1}^{\binom{D}{s}} \sum_{(j_s=1)}^{\binom{D-s}{j_s}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}-j_{sa}^{ik})}^{\binom{D}{j_{sa}}} \sum_{j_i=j_{sa}^{ik}}^{\binom{D-j_{sa}}{j_i}}$$

$$\sum_{n_{sa}=n-j_{sa}^{ik}+1}^n \sum_{(n_{ik}=n_{sa}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1+1)}^{\binom{D-n_{sa}}{n_{ik}}} \sum_{(n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_2)}^{\binom{D-n_{sa}}{n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_2}} \sum_{(n_s=n-j_i+1)}^{\binom{D-n_{sa}}{n_s}}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa}^{ik} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa}^{ik} - 1)! \cdot (n_{sa} + j_{sa}^{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{\binom{D}{k}} \sum_{(j_s=1)}^{\binom{D-k}{j_s}}$$



$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\quad)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_i-\mathbb{k}_3)}^{(\quad)}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}.$$

$$\frac{1}{(n+2 \cdot j_i+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!}$$

$$\frac{(D+n-n-l_i)! \cdot (n-s)!}{(D+n-n-l_i)! \cdot (n-s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = l_s > 0 \wedge$$

$$j_s = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, \dots \} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=s}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - j_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - j_i - 1)!}{(n_s - j_i - \mathbf{n} - j_i - 1)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik}^{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{\binom{D}{j_s}} \sum_{j_i=s}^{\binom{D}{j_s}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{\binom{D}{j_s}} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{\binom{D}{j_s}} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{\binom{D}{j_s}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \dots, \mathbb{K}_2, j_{sa}, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & j_s, j_{ik}, j^{sa}, j_i = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)} \\ & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa})} l_i \sum_{j_i=s} \\ & \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \\ & \sum_{n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)} \\ & \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{K}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{K}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=1}^{( )} \sum_{j_s=0}^{( )} \sum_{j_{ik}=j_{sa}^{ik} \cup \dots \cup j_{sa}^{ik}+1}^{( )} \sum_{j_i=s}^{( )}$$

$$\sum_{\substack{k=1 \\ k=n+\mathbb{K}}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1)}^{( )}$$

$$\sum_{\substack{j_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2 \\ (n_s=n_{sa}+j_{sa}-j_i-\mathbb{K}_3)}}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - n - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D > n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_i + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j_{sa}^{ik}-j_{sa}}^{l_i} \sum_{n=n_{ik}+j_{sa}-\mathbb{k}_2}^n \sum_{(n_i=j_{ik}-\mathbb{k}_1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}=n_{sa}+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}=n_{sa}+\mathbb{k}_3-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \frac{(n_i-j_{ik}-\mathbb{k}_1-1)!}{(j_i-j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-j_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \frac{(l_{ik}-j_{sa}^{ik})!}{(l_{ik}-j_{ik})! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} - \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{s})}^{(\cdot)} \\
 & \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\cdot)} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \\
 & \frac{(D + n - n_i)!}{(D + n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = l_s \geq 0 \wedge$$

$$j_s = j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, \dots, n\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - j_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n - j_i - \mathbf{n} - j_i - 1)!}{(n_s + j_i - \mathbf{n} - j_i - 1 - j_i)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik}^{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=1)}^{\binom{()}{}} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{\binom{()}{}} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{\binom{()}{}} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{\binom{()}{}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} .
\end{aligned}$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_i+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j_s, j_{ik}, j^{sa}, j_i)} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{(j_s - 1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(j^{sa} - j_{sa})} \sum_{j_i=s}$$

$$\sum_{i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=n_i - j_{ik} - \mathbb{K}_1 + 1)}^{( )}$$

$$\sum_{s_a=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2}^{( )} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{K}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(l_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D > \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$







$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\cdot)} \\
 & \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\cdot)} \\
 & \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
 & \frac{1}{(n+2 \cdot j_i+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \\
 & \frac{(D+n-n-l_i)! \cdot (n-s)!}{(D+n-n-l_i)! \cdot (n-s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = 1 \wedge 0 \wedge$$

$$j_s = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, \dots \} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\cdot)} \sum_{j_i=s}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - j_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - \mathbb{k}_3 - j_i - 1)!}{(n_s - j_i - \mathbf{n} - \mathbb{k}_3 - j_i)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - j_{sa} - j^{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\sum_{j_s, j_{ik}, j_{sa}, j_i}^{( )} = \sum_{k=1} \sum_{(j_s=1)}^{( )} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s}^{l_{sa}+s-j_{sa}} \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!}.$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(j_s - j_i)} \sum_{j_{ik}=j_{sa}^{ik}}^{(j^{sa} - j_{sa})} \sum_{j_i=s}^{(j_s - j_i)} \\
& \sum_{k_1=0}^n \sum_{k_2=0}^{(n_{ik}=n_i - j_{ik} - k_1 + 1)} \sum_{k_3=0}^{(n_s = n_{sa} + j_{sa}^{ik} - j_i - k_3)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - k_1 - k_2 - k_3)!}{(n_i - n - k_1 - k_2 - k_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$((n \geq n \wedge n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$



$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - \mathbf{n}) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j_{sa}}^{l_{ik}} \sum_{j_i=j_{sa}}^{(j_{sa})} \sum_{j_s=1}^{(j_s)} \\ & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)} \\ & \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\ & \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ & \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\ & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$



$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{ik}, j_{sa}}^{(i)} &= \sum_{k=1}^{(i)} (j_s = j_{ik} - j_{sa}^{ik} + 1) \\ &\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_s}^{(j_i+j_{sa}-s)} \sum_{j_{sa}=l_{sa}+n-D}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n_i=n+\mathbb{k}-j_s+1}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+}^{(\cdot)} \\ &\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j_{sa}=\mathbf{l}_{ik}+\mathbf{n}+j_{sa}^{ik})}^{\mathbf{n}} \sum_{j_i=\mathbf{n}-D}^{\mathbf{n}} \\ &\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \\ &\sum_{(n_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{j_i=\mathbf{n}-D}^{j_i-\mathbb{k}_3} \\ &\sum_{(j_i=\mathbf{n}+\mathbb{k}_3-j_{sa}-1)}^{(j_i=\mathbf{n}+\mathbb{k}_3-j_{sa}-1)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_s=\mathbf{n}-j_i+1} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \\ &\frac{(\mathbf{l}_i + j_{sa} - \mathbf{l}_{sa} - s)!}{(j_{sa} + \mathbf{l}_i - j_i - \mathbf{l}_{sa})! \cdot (j_i + j_{sa} - j_{sa}^s - s)!} \cdot \\ &\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} - \end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{2}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}}^{\binom{D}{2}} \sum_{(j_{sa}=j_i+j_{sa}-s)}^{\binom{D}{2}} \sum_{j_i=l_i+n}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{\binom{D}{2}} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{\binom{D}{2}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > s - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge \mathbb{k} > \mathbb{k}_1 \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}^{ik}, j_i} = \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{2}}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_s+n+j_{sa}-D-1)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{ik}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} = j_s \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - l_i + j_{sa} - s > j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
f_Z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_i+\mathbf{n}+j_{sa}-D-s-1)} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa})!}{(j^{sa} + l_i + j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D + l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (j_i)!}.$$

$$\sum_{j_{ik}=0}^{(n_{sa}+j_{sa}^{lk}-j_{sa})} \sum_{j_s=0}^{(n_{sa}+j_{sa}-D-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n_{sa}+j_{sa}-s)} \sum_{j_{sa}=0}^{(j_s-j_{sa}^{lk}+1)} \sum_{j_{ik}=0}^{(n_{sa}+j_{sa}-D-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n_{sa}+j_{sa}-s)} \sum_{j_{sa}=0}^{(j_s-j_{sa}^{lk}+1)}$$

$$\sum_{j_{ik}=0}^{(n_{sa}+j_{sa}-D-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n_{sa}+j_{sa}-s)} \sum_{j_{sa}=0}^{(j_s-j_{sa}^{lk}+1)} \sum_{j_{ik}=0}^{(n_{sa}+j_{sa}-D-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n_{sa}+j_{sa}-s)} \sum_{j_{sa}=0}^{(j_s-j_{sa}^{lk}+1)}$$

$$\frac{(n_{sa} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$







$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
& \sum_{j_{ik} = j_{sa}^{sa} + j_{sa}^{lk} - j_{sa}}^{(n + j_{sa} - s)} \sum_{(j_{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)} \sum_{j_{ik} = j_{sa}^{sa} + s - j_{sa}}^n \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_s + 1}^{n_{is} + j_s - \mathbb{k}_1} \\
& \frac{(n_{ik} + j_{ik} - j_{sa}^{sa} - n_{sa} + j_{sa} - j_i - \mathbb{k}_1)!}{(n_{sa} + j_{sa} - \mathbb{k}_3 - j_s - n_{sa} - j_i + 1)!} \cdot \\
& \frac{(n_{is} - n - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_{sa}^{sa} - 1)! \cdot (n_{sa} + j_{sa}^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa}^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa}^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}
\end{aligned}$$



$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j_{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j_s-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(j_s - j_s)!}{(j_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_i - l_i)!}{(D - j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + \mathbf{l}_i \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa}^{ik} \wedge j_{sa} + j_{sa}^{ik} - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_i - j_{sa}^{ik} + j_{sa} = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} = l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l_i - j_{sa}^{ik} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq j_{sa}^{ik} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\mathbf{l}_s+\mathbf{n}+j_{sa}-D-1)}^{(\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s-1)} \sum_{j_i=\mathbf{l}_i+\mathbf{n}-D}^n$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s + j_i - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (j_i - j_s - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - 1)!}{(j^{sa} + l_i + j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik} - j_{sa}^{ik} + 1, j_i} &= \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\ &\sum_{j_{ik} = l_{sa} + j_{sa}^{ik} - s - 1}^{n + j_{sa}^{ik} - s - 1} \sum_{j_{sa} = j_{sa}^{ik} - D - j_{sa}}^{( )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \sum_{j_i = l_i + n - D}^n \\ &\sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\ &\sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)} \sum_{n_s = n - j_i + 1}^{(n_i - n_{is} - 1)!} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\mathbf{n}} (j_s = j_{ik} - j_{sa} - s) \cdot \\
& \sum_{k=l_i + \mathbf{n} + j_{sa} - s}^{\mathbf{n} + j_{sa}^{ik} - s} (j^{sa} = j_i + j_{sa} - j_{sa}^{ik}) j_i - j_s - j_{sa} \\
& \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{\mathbf{n}} (n_{is} = \mathbf{n} + \mathbb{k}_1 + 1) n_{is} + j_s - j_{ik} - \mathbb{k}_1 \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{\mathbf{n}} (n_{sa} + j^{sa} - j_i - \mathbb{k}_3) n_{sa} + j^{sa} - j_i - \mathbb{k}_3 \\
& \sum_{n_s = \mathbf{n} - j_i + 1}^{\mathbf{n}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{j_i}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_i}} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{D}{j_i}} \sum_{j_{ik}=j_{sa}+s-j_{sa}}^{\binom{D}{j_i}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{sa}-\mathbb{k}_1}^{\binom{D}{j_i}} \\
& \sum_{n_{ik}=n_{is}+j_{sa}-\mathbb{k}_2}^{\binom{D}{j_i}} \sum_{j_{ik}=j_{sa}-j_i-\mathbb{k}_3}^{\binom{D}{j_i}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} + j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n - l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s-1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=l_i+n}^n \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\frac{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-j_{sa}^{ik}+j^{sa}-j_i-\mathbb{k}_3)!}{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{ik}-1)! \cdot (n_s=n-j_i+1)!} \cdot \\
&\frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
&\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
&\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=1}^{\sum} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{n+j_{sa}^{lk}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \geq l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=\mathbf{l}_s+\mathbf{n}+j_{sa}^{ik}-D-1}^{\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=\mathbf{l}_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - 1)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot$$

$$\frac{(D - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_i+l_s-j_{sa}^{ik}-D-s}^{j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^n (j_s = j_{ik} - j_{sa}^{ik})$$

$$\sum_{k=l_i+n+j_{sa}-s}^{n+j_{sa}^{ik}-s} (j^{sa} = j_i + j_{sa} - j_{sa}^{ik}) j_i + j_{sa} - j_{sa}^{ik}$$

$$\sum_{k=n+\mathbb{k}}^n (n_{is} = n + j_s + 1) n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} (n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3)$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(j_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$\geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$



$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=l_{sa}+1, \dots, D-j_{sa}+1)}^{(l_i+n-D-s)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{sa}=j_s+j_{sa}^{ik}-1)} \sum_{(j_i=l_i+1, \dots, D-j_{sa}+1)}^{(j_{sa}=j_s+j_{sa}^{ik}-1)} \sum_{n_i=1}^n \sum_{(n_{is}=n+j_{sa}^{ik}-1)}^{(j_s+1)} \sum_{n_{ik}=1}^{j_s-j_{ik}-\mathbb{k}_1} \sum_{(j_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(j_{sa}+j_{sa}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+j_{sa}^{ik}-1)}^{(j_{sa}+j_{sa}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(j_{sa}+j_{sa}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$



$$\begin{aligned}
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{n_s=n-j_i-\mathbb{k}_3}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)!}{(D - j_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3 - n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_{sa} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_s - j_{sa} = l_{ik} \wedge l_{ik} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - l_s - s)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}-j_{ik}^{lk}-1}^{(j_{ik}=j_s+j_{sa}-j_{ik}^{lk})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j_i=j^{sa}+s-j_{sa})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(j_{ik}=j_s+j_{sa}-j_{ik}^{lk})} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(j_i=j^{sa}+s-j_{sa})} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}^{sa}, j_i} &= \sum_{k=1}^{j_s + \mathbf{n} - D - s} \sum_{(j_s = \mathbf{l}_s + \mathbf{n} - D)}^{j_s + \mathbf{n} - D - s} \\ &\sum_{j_i = j_s + j_{sa}^{ik} - 1}^{j_i = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(j_i = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = \mathbf{l}_i + \mathbf{n} - D}^{\mathbf{n}} \\ &\sum_{n_i = j_s + \mathbb{k}}^{n_i = j_s + \mathbb{k} + 1} \sum_{n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1}^{n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \frac{(n-s+1)!}{(j_s = l_i + l_{sa} - s + 1)!} \cdot \\
& \sum_{j_{ik}=j_s+j_{sa}-1}^{(j^{sa}=j_{ik}+j_{sa}-1)} \frac{(j^{sa}=j_{ik}+j_{sa}-1)!}{(j_i=j^{sa}+s-j_{sa})!} \cdot \\
& \sum_{n_i=n+l_k}^n \frac{(n_i - l_i - 1)!}{(n_i + l_i - j_s - n_{ik} - l_{k_1})!} \cdot \\
& \sum_{n_{ik}=n+l_k-j_s}^{(n_{ik}=n+l_k-j_s)} \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} = n_{ik} - j^{sa} - l_{k_1})!} \cdot \\
& \sum_{(n_{sa}=n_{ik}-j^{sa}+1)}^{(n_{sa}=n_{ik}-j^{sa}+1)} \frac{(n_{sa} + j^{sa} - j_i - l_{k_3})!}{(n_s = n - j_i + 1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k_3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k_3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-1)}^{( )} \sum_{(n_s=n_{sa}+j^{sa}-j_i)}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-2 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}$$

$$\frac{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > \mathbf{n} - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik}+j_{sa}^{ik}+1 \wedge j_i+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j_{sa} \leq j_i+j_{sa}-1 \wedge j^{sa}+s-j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik}-j_{sa}+1=l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} > l_{ik} \wedge l_i+j_{sa}-s=l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbb{k} = \mathbb{k} > \mathbf{n} \wedge$$

$$j_s < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq \mathbf{n} \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fzS_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_{k_2}+l_{k_3}-j_{ik}-1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_{k_3}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k_2}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-l_{k_3}-1)!}{(j_i-j^{sa}-1)!(n_{ik}+j^{sa}-n_s-j_i-l_{k_3})!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)!(n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)!(n-j_i)!} - \\
& \sum_{k=1}^j \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot Z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}+1}} \sum_{\substack{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \\ (j^{sa}=j_i+j_{sa}-s) \\ j_i=l_i+n-D}}^{\binom{()}{j^{sa}=j_i+j_{sa}-s}} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik} - j_{sa}^{ik} + 1, j_i} &= \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\ &\sum_{j_{ik} = \mathbf{n} + \mathbb{K} + \mathbf{n} - D}^{j_{sa} + j_{sa}^{ik}} \sum_{(j_{sa} = l_i + \mathbf{n} + j_{sa} - D - s)}^{(j_{sa} = s)} \sum_{j_i = j^{sa} + s - j_{sa}} \\ &\sum_{n_i = \mathbf{n} + \mathbb{K}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{K} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{K}_3 - j^{sa} + 1)}^{n_{sa} + j^{sa} - j_i - \mathbb{K}_3} \sum_{n_s = \mathbf{n} - j_i + 1}^{(n_i - n_{is} - 1)!} \\ &\frac{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!} \cdot \\ &\frac{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!}{(n_{ik} - n_{sa} - 1)!} \cdot \\ &\frac{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}{(n_{sa} - n_s - \mathbb{K}_3 - 1)!} \cdot \\ &\frac{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{s=1}^n \sum_{j_s=j_{ik}-j_{sa}^{lk}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}}^n \sum_{(j^{sa}=l_i+j_{sa}^{lk}-s)} \sum_{(j_i=j^{sa}+j_{sa}^{lk}-s-j_{sa})}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k1}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_k2)} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_k3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k1} - l_{k2} - l_{k3})!}{(n_i - n - l_{k1} - l_{k2} - l_{k3})!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n \leq l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{j_s=j_{ik}-j_{sa}+1}^{( )} \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{n_i=n+\mathbb{k}}^{(n+j_{sa}-s)} \sum_{n_{is}=n+\mathbb{k}_1}^{(n+j_{sa}-D-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{is}-1)} \sum_{n_{sa}=n-j_i+1}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}+\mathbb{k}_3-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{D}{j_i}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik} = j_{sa}^{sa} + j_{sa}^{lk} - j_{sa}}^{\binom{n + j_{sa} - s}{j_{sa}}} \sum_{(j_{sa} = l_i + n + j_{sa} - D - s)}^{\binom{n + j_{sa} - s}{j_{sa}}} \sum_{j_{ik} = j_{sa}^{sa} + s - j_{sa}}^{\binom{n + j_{sa} - s}{j_{sa}}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{(n_i - j_s + 1)} \\
& \sum_{(n_{sa} = n_{ik} + j_{sa} - \mathbb{k}_2)}^{\binom{n_i - j_s + 1}{j_{sa}}} \sum_{(j_{ik} = j_{sa}^{sa} + s - j_{sa} - \mathbb{k}_3)}^{\binom{n_i - j_s + 1}{j_{sa}}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s = D - n - 1 \wedge$$

$$2 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_{sa} + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_s=n-j_i+\mathbb{K}_3)}^{(n_{is}+j_s-j_{ik}-\mathbb{K}_1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{K}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{K}_1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{K}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{K}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbb{k})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = l_s + \mathbf{n} + j_{sa}^{ik} - D - 1}^{l_i + \mathbf{n} + j_{sa}^{ik} - D - s - 1} \sum_{(j^{sa} = l_i + \mathbf{n} + j_{sa} - D - s)}^{(\mathbf{n} + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j^{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{ik} - j^{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+l_{sa}-j_{sa}^{ik}-D-s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=1}^{j_{ik}-j_{sa}^{lk}} (j_s = j_{ik} - j_{sa}^{lk})$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{lk}-s}^{n+j_{sa}^{ik}-s} (j^{sa}=j_{ik}-j_{sa}-j_{sa}^{lk}) \sum_{j_i=j^{sa}+s-j_{sa}}^{j_{ik}-j_{sa}-j_{sa}^{lk}} (j_i = j^{sa} + s - j_{sa})$$

$$\sum_{j_{ik}=n+l_{sa}+l_{ik}-j_s+1}^n (j_s=j_{ik}-j_{sa}-j_{sa}^{lk}) \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{j_s+1} (n_{is}=n+l_{sa}+l_{ik}-j_s+1) \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{j_s+1} (n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1})$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{j_s+1} (n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}) \sum_{n_s=n_{sa}+j^{sa}-j_i-l_{k_3}}^{j_s+1} (n_s=n_{sa}+j^{sa}-j_i-l_{k_3})$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k_1} - l_{k_2} - l_{k_3})!}{(n_i - \mathbf{n} - l_{k_1} - l_{k_2} - l_{k_3})!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$l_i \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$



$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_i + \mathbb{k} - D - s)} \frac{(l_i + \mathbb{k} - D - s)!}{(j_{ik} + n - l_{ik} - j_{sa}^{ik} + 1)!} \cdot \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{j_{sa}=n+j_{sa}-D}^{(n+j_{sa}-s)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \frac{(n+j_{sa}-s)!}{(n_i - n_{is} - 1)!} \cdot \sum_{n_i=n+\mathbb{k}}^{(n_i - n_{is} - 1)!} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i - n_{is} - 1)!} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i - n_{is} - 1)!} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$



$$\begin{aligned}
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_{k3}-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{n_s=n-j_i}^{n_{sa}+j_{ik}-j_{ik}-l_{k3}} \\
& \frac{(n_i-n_{ik}-l_{k1}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}+j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-l_{k3}-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-l_{k3})!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D - j_i - n - l_s)(n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_{sa} \leq j_i \leq j_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_s - j_{sa} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_2)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_2)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{ik}, j_{sa}}^{(n)} &= \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=l_{ik}^{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{()}{j_{ik}=l_{ik}^{sa}+j_{sa}^{ik}-j_{sa}}} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^{\binom{()}{j_i=l_{sa}+n+s-D-j_{sa}}} \sum_{n_i=n+\mathbb{k}-j_s+1}^{\binom{()}{n_i=n+\mathbb{k}-j_s+1}} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{\binom{()}{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}} \\ &\quad \sum_{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}^{\binom{()}{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}} \sum_{n_s=n-j_i+1}^{\binom{()}{n_s=n-j_i+1}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\quad \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\quad \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(j_s - j_i - j_{sa}^{ik} + 1)} \sum_{l_i = j_i - j_{sa} - s}^{(j_i + j_{sa} - s)} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(j_i + j_{sa} - s)} \sum_{n_i = n + \mathbb{k}_1}^{(n + \mathbb{k}_1 - j_s)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n + \mathbb{k}_1 - j_s)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(n_{ik} + j_{ik} - j_s - \mathbb{k}_2)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

[illegible]



$$\sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_{sa}+n+s-D-j_{ik}}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{sa}=n_{sa}+j_{sa}^{sa}-j_i)}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}{(n - j_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge n = \mathbb{k} > n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f^z S_{j_s, j_{ik}, j_{sa}^{sa}, j_i} = \sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_{k_2}+l_{k_3}-j_{ik}-1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_{k_3}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-l_{k_2}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-l_{k_3}-1)!}{(j_i-j^{sa}-1)! \cdot (n_{ik}+j^{sa}-n_s-j_i-l_{k_3})!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\quad}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} = j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s + j_i - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\ &\sum_{j_{ik}=j_{ik}+n-D}^{n+j_{sa}^{ik}-j_{sa}-1} \sum_{(j_{sa}=l_{sa}+n-D)}^{n+j_{sa}-s} \sum_{j_i=j^{sa}+s-j_{sa}} \\ &\sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=1}^{j_s=j_{ik}-j_{sa}^{ik}} \sum_{j_i=1}^{j_i=j_{ik}-j_{sa}^{ik}}$$

$$\sum_{j_{ik}=1}^{n+j_{sa}^{ik}-s} \sum_{j_{sa}=1}^{j_{sa}=j_{ik}-j_{sa}^{ik}} (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!$$

$$\sum_{n_i=1}^n \sum_{n_{is}=n+\mathbb{k}_1+1}^{(n_{is}-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, j_{sa}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{(j_{sa}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ls}=n+\mathbb{k}-j_s, \dots, n_{ls}=n+\mathbb{k}-j_s-j_{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa}^s + s - j_{sa} \leq j_i \leq n \wedge$$

$$j_{sa} - j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1}^{l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2+k_3-j_i}^{n_{is}+j_s-j_{ik}-k_1} \\
& \sum_{(n_{sa}=n+k_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-k_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_{ik}-n_{is}-j_{ik}-k_1)!} \\
& \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}+j_s-k_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{ik}+j^{sa}-n_s-j_i-k_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_{sa} + \mathbf{n} - D - j_{sa})} \sum_{(j_s = l_{ik} + \mathbf{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\mathbf{n} + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(\mathbf{n} + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j^{sa} - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{(n-s+1)} \sum_{j_s=j_s+k-j_{sa}+1}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n-s+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n-s+1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n-s+1)}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^{(n_i-1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{\lfloor \frac{(l_{sa} + j_{sa}^{ik} - D - j_{sa})}{2} \rfloor} \sum_{j_s = l_s}^{(n + j_{sa})} \sum_{j_{ik} = j_s + j_{sa}^{ik} - j_{sa} = l_{sa} + j_{sa}^{ik} - j_{sa} - 1}^{(n + j_{sa})} \sum_{j_i = j_s + j_{sa} - j_{ik} - \mathbb{k}_1}^{(n + j_{sa})} \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{n_{is} = n + \mathbb{k}_1 + j_s + 1}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{ik} + j_{sa} - \mathbb{k}_2)} \sum_{n_{sa} = n + \mathbb{k}_3 - j_{sa} + 1}^{(n_{sa} + j_{sa} - j_i - \mathbb{k}_3)} \sum_{n_s = n - j_i + 1}^{(n_i - n_{is} - 1)!} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



[illegible]



$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})} \sum_{j_i=j_{sa}+s-j_{sa}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
 & \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\
 & \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
 & \frac{1}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot \\
 & \frac{(j_s)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(D-l_i)!}{(D-j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 D & \geq n < n \wedge l_s > D - n + 1 \wedge \\
 2 & \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
 j_{ik} + j_{sa} - j_{sa}^{ik} & \leq j_{sa} \leq j_i + j_{sa} - j_{sa}^{ik} + j_{sa} \leq j_i \leq n \wedge \\
 l_i - j_{sa}^{ik} + j_{sa} & = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
 D & \geq n < n \wedge l = l_s > 0 \wedge \\
 j_{sa} & < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
 s & : \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
 s & \geq j_{sa}^{ik} = s + \mathbb{k} \wedge \\
 \mathbb{k}_z : z = 3 \wedge \mathbb{k} & = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
 \end{aligned}$$

$$fzS_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_i+j_{sa}-s)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n-D}^n$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=l_i+n-D}^{\binom{()}{j^{sa}=j_i+j_{sa}-s}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_{sa}^{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{sa}^{ik} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + l_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_s - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$\begin{aligned} S_{i_s, j_s} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \\ \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_i + n + j_{sa} - D - s - 1)} \sum_{j_i = l_i + n - D}^n \\ \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 + k_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \\ \sum_{(n_{sa} = n + k_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - k_3} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(\mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\mathbf{n}}$$

$$\sum_{j_i=j^{sa}+s-j_{sa}}^{\mathbf{n}} \sum_{j_i+l_{ik}+n-j^{sa}-j_{sa}}^{(n_{sa}-s)} \sum_{j_i+n+j_{sa}-D-s}^{(n_{sa}-s)}$$

$$\sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{j_{ik}-j_{sa}^{ik}} \sum_{j_{sa}=j_{ik}-j_s^{ik}}^{j_{ik}-j_s^{ik}-j_{sa}^{ik}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_s^{ik}}^{j^{sa}+j_{sa}^{ik}-j_s^{ik}-j_{sa}^{ik}} \sum_{j_i=j^{sa}+j_{sa}^{ik}-j_s^{ik}-j_{sa}^{ik}}^{j^{sa}+j_{sa}^{ik}-j_s^{ik}-j_{sa}^{ik}-j_{sa}^{ik}} \sum_{n=\mathbb{k}_1}^n \sum_{n_{is}=n+\mathbb{k}_1}^{n+\mathbb{k}_1+j_s+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$n \leq n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$



$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_{sa}, j_i}^S = \sum_{j_s=j_{ik}-j_{sa}+1}^{( )} \sum_{j_{ik}=l_s+n+j_{sa}^{ik}}^{(l_i+n-j_{sa}-D-s-1)} \sum_{j_i=l_i+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{n_i=n+\mathbb{K}}^{(n_i-1)} \sum_{n_{is}=n+\mathbb{K}_1}^{(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{K}_1)} \sum_{n_{ik}=n_{sa}+j_{sa}-j_i-\mathbb{K}_3}^{(n_{ik}+j_{sa}-j_{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}-n_{sa}-\mathbb{K}_3-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + j_{sa})}^{( )} \\
& \sum_{j_{ik} = l_s + n + j_{sa}^{ik} - D - 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_i + n + j_{sa} - D)}^{(n + j_{sa} - s)} \sum_{(j_{sa} = j_{sa} - j_{sa})}^n \\
& \sum_{n_i = n + k}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{is} + j_s - j_{ik} - k_1)}^{(n_{is} + j_s - j_{ik} - k_1)} \\
& \sum_{(n_{ik} + j_{sa} - k_2)}^{(n_{ik} + j_{sa} - k_2)} \sum_{(n_{sa} = j_i - k_3)}^{(n_{sa} = j_i - k_3)} \\
& \sum_{(n_s = n + k_3 - j^{sa} - 1)}^{(n_s = n + k_3 - j^{sa} - 1)} \sum_{n_s = n - j_i + 1}^{(n_s = n - j_i + 1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - k_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - k_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(n+j_{sa}-s)}^{(n+j_{sa}-s)} \sum_{j_i=j_{sa}+s-j_{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}$$

$$\frac{(n_i+2\cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-2\cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-j_i-\mathbb{k}_1-j_{sa}-\mathbb{k}_3)}.$$

$$\frac{(n+2\cdot j_i+j_{sa}^s+j_{sa}^{lk}-j_s-j_{ik}-3\cdot s)!}{(n+2\cdot j_i+j_{sa}^s+j_{sa}^{lk}-j_s-j_{ik}-3\cdot s)!}.$$

$$\frac{(l_s-2)!}{(l_s-j_s)!\cdot(j_s-2)!}.$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)!\cdot(n-j_i)!}$$

$$D \geq n < n \wedge l_s > s - n + 1 \wedge$$

$$2 < j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_{ik}+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j_{sa} \leq j_i+j_{sa}-j_{ik} \wedge j^{sa}+s-j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik}-j_{sa}^{lk}+1=l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} > l_{ik} \wedge l_i+j_{sa}-s > l_{sa} \wedge$$

$$D \geq n < n \wedge \mathbb{k} > \mathbb{k} \wedge$$

$$j_{sa}^{lk}+j_{sa}^{lk}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^s < j_{sa}^{ik}-1 \wedge$$

$$s:\{j_{sa}^s,\cdots,j_{sa}^s,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^i\} \wedge$$

$$s \leq 0 \wedge s=s+\mathbb{k} \wedge$$

$$\mathbb{k}_z:z=3 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$$

$$fzS_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!(n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)!(n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)!(n-j_i)!} + \\
& \sum_{k=1}^s \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{\mathbf{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_i=j^{sa}+s-j_{sa}}} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_{sa}^{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{ik} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_s+\mathbf{n}+j_{sa}^{ik}-D-1}^{l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j^{sa} - l_{ik} - j^{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + l_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{ik} - j_{sa} - l_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - s)! \cdot (j_i + j^{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
& \sum_{j_{ik} = l_i + 1}^{j_{sa}^{ik} - s} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \sum_{j_i = j^{sa} + s - j_{sa}}^{( )} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f z^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_s=l_{ik}+n-D-j_{sa}^{ik}+1}^{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}^{ik}-s)} \sum_{j_i=l_i+n-D}^n \\ & \sum_{j_s=1}^{(j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ & \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_s=l_i+n-D-s}^{n-s} \sum_{j_{ik}=j_s-\mathbb{k}_1-1}^{j_s+j_{sa}-s} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_{is}=n+\mathbb{k}_1}^n \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$



$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}^{ik}-1)}^{( )} \sum_{(j_i=j^{sa}+j_{sa}^{ik}-j_{sa})}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1)}^{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_3)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_Z \mathcal{S}_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(l_i + n - D - s)} \sum_{(j_s = l_s + n - D)}^{(l_i + n - D - s)} \\
 &\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \sum_{j_i = l_i + n - D}^n \\
 &\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} + 1)}^{(n_{is} + j_{ik} - \mathbb{k}_2 + \mathbb{k}_3)} \\
 &\sum_{(j_i = j_s + j_{sa}^{ik} - 1)}^{(n_{ik} + j_{ik} - \mathbb{k}_2)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n_{sa} + j^{sa} - \mathbb{k}_3)} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 &\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_i + n - D - s + 1)}^{(n-s+1)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_{ik}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{is}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(\mathbf{n}-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n - 1)!}{(D - j_i - n - l_s)!(n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_s \leq j_i \leq j_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_s - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - n_{ik} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}$$

$$\frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (\mathbf{n} - j_i)!}$$

$$\frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_s - j_{ik} - l_s + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+\mathbf{n}-D}^n$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}.$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 + k_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1}$$

$$\sum_{(n_{sa} = n + k_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - k_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}.$$



$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$







$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_{sa}=j_{ik}-j_{sa}^{lk}}^{(\quad)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ls}=n_i+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{ls}+j_s-j_{ik}-\mathbb{k}_1)}^{(\quad)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_{sa}+j_{sa}-j_i-\mathbb{k}_3}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z \mathcal{S}_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_s}^{( )} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1}^{n_{is}+j_{ik}-\mathbb{k}_1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-\mathbb{k}_2)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n_{sa}+j^{sa}-\mathbb{k}_3)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j^{sa}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n-j_i+1)} \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{n+j_{sa}^{lk}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_s=j_i+1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_1)} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-\mathbb{k}_3-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_i+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{lk}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{lk}+1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} = j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+\mathbf{n}-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+\mathbf{n}+s-D-j_{sa}}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s + \mathbf{n} - n - 1)!}{(n_s + \mathbf{n} - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \cdot \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^n \cdot \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \cdot \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \cdot \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f^Z \mathcal{S}_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)} \\ &\sum_{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}}^{j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)} \sum_{j_i = j^{sa} + s - j_{sa}}^{j_i = j^{sa} + s - j_{sa}} \\ &\sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=1}^{j_{ik}-j_{sa}^{ik}} \sum_{j_{sa}=1}^{j_{ik}-j_{sa}^{ik}+j_{sa}^{ik}-s}$$

$$\sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{j_{ik}-j_{sa}} \sum_{j_{sa}=1}^{j_{ik}-j_{sa}^{ik}+j_{sa}^{ik}-s} \sum_{j_i=j_{sa}^{ik}-s-j_{sa}}^{j_{ik}-j_{sa}^{ik}+j_{sa}^{ik}-s}$$

$$\sum_{n+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+j_s+1)}^{j_s+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{n_s=n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(j_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$\mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$







$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}}^{( )}$$

$$\sum_{j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{\mathbf{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_{ik}=j_{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{(n_{ik}=n_{is}+j_s-j_{sa}^{ik}-\mathbb{k}_1)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n + j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} + j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f z_{j_s, j_{ik}, j^{sa}, j_i}^S &= \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)} \sum_{n_s=n-j_i+\mathbb{k}_3}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
 &\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_s-2)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}+1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^n \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\quad)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - \mathbf{l})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + \mathbf{n} - D)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{( )} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{( )} \sum_{j_i = l_{ik} + s + \mathbf{n} - D - j_{sa}^{ik}}^{\mathbf{n}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_{ik}+\mathbf{n}+s-D-j_{sa}^{ik}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z^{S_{j_s, j_{ik}, j_i}} &= \sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s = l_s + n - D)}^{(j_{sa} - s)} \\ &\sum_{(j_{sa} + j_{sa}^{ik} - (j^{sa} = l_{ik} + n - j_{sa} - D - j_{sa}^{ik}))}^{(j_s + 1)} \sum_{j_i = j^{sa} + s - j_{sa}}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{n_i = n + \mathbb{k} - (n_{is} = n + \mathbb{k} - j_s + 1)}^{n} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)} \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{n_s = n - j_i + 1} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(j_s - j_i - j_{sa}^{ik} + 1)} \sum_{s=1}^{(n + j_{sa} - D - j_s - j_i - j_{sa}^{ik} + 1)} \sum_{i=1}^{(j_{sa} + s - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik} = j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}}^{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} + 1)} \sum_{j_s = j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} + 1}^{(n + j_{sa} - D - j_s - j_i - j_{sa}^{ik} + 1)} \sum_{j_i = j_{sa}^{ik} + s - j_{sa}^{ik} + 1}^{(j_{sa}^{ik} + s - j_{sa}^{ik} + 1)} \\
& \sum_{n_i = \mathbb{k}_1}^{(n + \mathbb{k}_1 - j_s - j_i - j_{sa}^{ik} + 1)} \sum_{n_{ik} = n + \mathbb{k}_1 - j_s - j_i - j_{sa}^{ik} + 1}^{(n + \mathbb{k}_1 - j_s - j_i - j_{sa}^{ik} + 1)} \sum_{n_{is} = n_{ik} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{ik} + j_s - j_{ik} - \mathbb{k}_1)} \\
& \sum_{n_s = n_{ik} + j_{ik} - j_{sa}^{ik} - \mathbb{k}_2}^{(n_{ik} + j_{ik} - j_{sa}^{ik} - \mathbb{k}_2)} \sum_{n_s = n_{sa} + j_{sa}^{ik} - j_i - \mathbb{k}_3}^{(n_{sa} + j_{sa}^{ik} - j_i - \mathbb{k}_3)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot
\end{aligned}$$

$$D > \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq j_i + j_{sa} - s \wedge j_{sa}^{ik} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-1)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{ik}-j_{sa})}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{ik}-j_{sa})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1}$$

$$\sum_{(n_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{sa}-\mathbb{k}_2)} \sum_{(n_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$



$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \sum_{j_i=j^{sa}+s-}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_i-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{(n_{sa}+j^{sa}-j_i-}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \cdot j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa} - 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge n - \mathbb{k} > n \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_{k_2}+l_{k_3}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{(n_{sa}=n+l_{k_3}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \sum_{(n_s-j_i+1)}^{(n_{sa}+j_{sa}-j_i-l_{k_1})} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!} \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-l_{k_3}-1)!}{(j_i-j_{sa}-1)! \cdot (n_i+j_{sa}-n_s-j_i-l_{k_3})!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_{k_2}+l_{k_3}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_{ik} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_s - j_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}.$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(j_i + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(j_i + j_{sa} - s)} \sum_{j_i = l_i + n - D}^n$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 + k_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1}$$

$$\sum_{(n_{sa} = n + k_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - k_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}.$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j^{sa}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z^{S_{j_s, j_{ik}^{sa}, j_i}} &= \sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s = l_s + n - D)}^{n + j_{sa} - j_s - 1} \sum_{j_{ik} = j_{sa}^{ik} - j_{sa}}^{n} \sum_{(j_i = l_i + n - D)}^{n} \\ &\quad \sum_{j_{ik} = j_{sa}^{ik} - j_{sa}}^{n} \sum_{(j_s = l_s + n - D)}^{n + j_{sa} - j_s - 1} \sum_{j_i = l_i + n - D}^n \\ &\quad \sum_{n_i = n + \mathbb{k} - j_s + 1}^{n} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ &\quad \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\ &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\quad \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\quad \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \frac{(j_{ik} - j_{sa}^{ik} + 1)!}{(j_s - l_s + \mathbf{n} - j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \sum_{k=j^{sa} + j_{sa}^{lk} - j_i - s}^{(j_s - l_s - s)} \frac{(j_s - l_s - s)!}{(j^{sa} + l_i + j_{sa}^{lk} - j_i - s - j^{sa} - l_i - s)!} \cdot \sum_{j_i=j^{sa} + j_{sa}^{lk} - j_i - s}^{\mathbf{n}} \frac{\mathbf{n}}{(j_s - l_s - s)!} \cdot \\
& \sum_{n_{ik}=\mathbb{k}_1}^{\mathbf{n}} \frac{(n_{is} - j_s + 1)!}{(n_{is} - \mathbf{n} + \mathbb{k}_1 - j_s + 1)!} \cdot \sum_{n_{ik}=\mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} - 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \frac{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)!}{(n_{is} - \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} - 1)!} \cdot \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} - \mathbb{k}_2)}^{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} - \mathbb{k}_2)} \frac{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)!}{(n_{sa} - \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)!} \cdot \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \frac{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)!}{(n_s - \mathbf{n} - j_i + 1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$



$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + j_{sa}^{ik})}^{( )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_i + n + j_{sa} - l_{sa} - j_{sa}^{ik} + j_{sa})}^{(n + j_{sa} - s)} \sum_{(j_{sa}^{ik} = j_{sa} - j_{sa}^{ik} + j_{sa})}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} = n_i + j_s - j_{ik} - \mathbb{k}_1)}^{(n_i - j_s + 1)}$$

$$\sum_{(n_{sa} = n_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \sum_{(n_{sa} = n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k+l_3-j_i}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{(n_{sa}=n+l_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k2})} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-l_{k1}} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-l_3-l_{k3}-1)!}{(j_i-j_{sa}-1)! \cdot (n_i+j_{sa}-n_s-j_i-l_{k3})!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^n \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot \\
& \frac{(l_s-2)!}{(l_s+j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(n-1)!}{(D+j_i-n-\mathbb{k}_1)(n-j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_s \leq j_i \leq j_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_s - j_{sa} = l_{ik} \wedge l_{ik} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_s + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$S_{j^{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{( )} \sum_{j_i = l_i + n - D}^n$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}}^{( )}} \sum_{j_t=l_i+n-D}^n$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}}^{( )} \sum_{j^{sa}=j_i+j_{sa}-s}^{( )} \sum_{j_t=l_i+n-D}^n$$

$$\sum_{l_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$



$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z(j_{ik}, j_{sa}, j_s, j_i, j_{sa}^{ik}, j_{sa}^s, j_{sa}^i) &= \sum_{j_{sa}^{ik}=j_{sa}-1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{sa}^s=j_{sa}^{ik}-1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}^i=j_{sa}-1}^{(n+j_{sa}^{ik}-s)} \\ &\sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=l_{ik}+n-D}^{(n+j_{sa}^{ik}-s)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(n+j_{sa}^{ik}-s)} \\ &\sum_{n+\mathbb{k}(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{j_{sa}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-D-j_{sa}^{sa}-j_{sa}^{ik}+1)} \sum_{j_{sa}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-D-j_{sa}^{sa}-j_{sa}^{ik}+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{(n_i+\mathbb{k}_1+1)} \sum_{n_s=\mathbf{n}+\mathbb{k}_1-j_s+1}^{(n_i+\mathbb{k}_1+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i+\mathbb{k}_1+1)} \\
& \sum_{n_s=n_{sa}+j_{sa}^{sa}-\mathbb{k}_2}^{(n_i+\mathbb{k}_1+1)} \sum_{n_s=n_{sa}+j_{sa}^{sa}-j_i-\mathbb{k}_3}^{(n_i+\mathbb{k}_1+1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

$$D > \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-1)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_{sa}=l_i+n+j_{sa}-j_{ik})}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_i+n+j_{sa}-j_{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{n_{is}+j_s-j_{ik}}$$

$$\sum_{(n_{ik}-j_{sa}-\mathbb{k}_Z)}^{(n_{ik}-j_{sa}-\mathbb{k}_Z)} \sum_{(j_i=n+\mathbb{k}_3-j_i-1)}^{(j_i=n+\mathbb{k}_3-j_i-1)} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s -} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n + \mathbb{k}_3 - j_s + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{(n_{sa} - n_{ik} - \mathbb{k}_1)} \\
& \frac{(n_{sa} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{( )} \sum_{(n_s=n_{sa}+j_{sa}-j_i-l_{k_3})}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k_2} - l_{k_3})!}{(n_i - n - l_{k_1} - l_{k_2} - l_{k_3})!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - j_s)! \cdot (j_s - 2)!}{(D - l_i)!} \cdot \\
& \frac{1}{(D - j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + j_{sa}^{ik} - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - j_{sa}^{ik} + s \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l_i = 0 > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i, \dots, l_{k_3}, j_{sa}^i\} \wedge$$

$$s > n - l_i = s + l_k \wedge$$

$$l_{k_z}: z = 3 \wedge l_{k_z} = l_{k_1} + l_{k_2} + l_{k_3} \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j_{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+l_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - l_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - l_1 - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_s - j_{ik} - l_1 + j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} + j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{is}=n+l_1-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1}^{( )} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_3}^{( )}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + \mathbf{n} - D)}$$

$$\sum_{j_{ik} = l_{ik} + \mathbf{n} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{(\quad)} \sum_{j_i = l_{sa} + \mathbf{n} + s - D - j_{sa}}^{\mathbf{n}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - l_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - l_{ik} - j_{sa} + 1)!} \cdot \\
& \frac{(j_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\substack{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa} \\ (j^{sa}=j_i+j_{sa}-s) \\ j_i=l_{sa}+n+s-D-j_{sa}}}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{n_i=n+\mathbb{k}}^n \sum_{\substack{(n_i-j_s+1) \\ n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(n_i-j_s+1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} S_{j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)} \\ &\sum_{j_{ik} = l_{ik} + n - D}^{s + j_{sa}^{ik} - j_{sa}} \sum_{(j_{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}} \\ &\sum_{n_i = n + \mathbb{K}}^n \sum_{(n_{is} = n + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1} \\ &\sum_{(n_{sa} = n + \mathbb{K}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s + 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\sum_{j_s=j_{sa}+j_{sa}^{ik}-n-D}} \sum_{j_i=j_{sa}+s-j_{sa}}^{(j_s+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$



$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}+n+j_{sa}^{ik}-l_{sa}-s-1} \sum_{j_{sa}=l_{sa}+n-D}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j_i-j_s)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{j_s=1}^{n - j_{sa}^{ik} + 1} \sum_{j_{ik}=1}^{n - D}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_s}^{n+j_{sa}^{ik}-s} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}^{ik}-s)} \sum_{j_{sa}=j_{sa}^{ik}-j_{sa}}^{j_{sa}^{ik}-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}_1}^{(n_i-\mathbb{k}_1-1)} \sum_{n_{is}=n+\mathbb{k}_1-j_s+1}^{(n_i-\mathbb{k}_1-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-\mathbb{k}_1-1)}$$

$$\sum_{n_{ik}=n_{sa}+j_{sa}-\mathbb{k}_2}^{(n_{ik}+j_{sa}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \quad j_{sa}^{ik}-j_{sa})}$$

$$\sum_{j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{\mathbf{n}+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{(j_{sa}^{ik}-j_{sa})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{l_s}=\mathbf{n}+\mathbb{k}-j_s, \quad n_{l_i}=\mathbf{n}+\mathbb{k}-j_s-j_{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)} \sum_{(n_{l_s}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{(n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_3)}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa}^s + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: Z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)}^{(l_{sa} + n - D - j_{sa})}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_s}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_{ik} - \mathbb{k}_1}^{n_{is} + j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{ik} + j_{ik} - \mathbb{k}_2)}^{(n_{ik} + j_{ik} - \mathbb{k}_2)} \sum_{(n_{sa} = j^{sa} + s - j_i + 1)}^{n_{sa} + j^{sa} - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_i+1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-j_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D - j_i - n - l_s)(n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_{sa} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_s - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_i+j_{sa}-s)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{sa} - j_{ik} - l_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} + j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{ik} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+\mathbf{n}-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(l_i+\mathbf{n}+j_{sa}-D-s-1)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (j_i - j_s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} + j_{sa} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_s - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j_i + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + \mathbf{n} - D)} \\
& \sum_{j_{ik} = l_{ik} + \mathbf{n} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_i + \mathbf{n} + j_{sa} - D - s)}^{(\mathbf{n} + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - 1)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(j_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + \mathbf{n} - D)}$$

$$\sum_{j_{ik} = l_{ik} + \mathbf{n} - D}^{l_i + \mathbf{n} + j_{sa}^{ik} - D - s - 1} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(\mathbf{n} + j_{sa} - s)} \sum_{j_i = l_i + \mathbf{n} - D}^{\mathbf{n}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1) \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(l_i + j_s - l_{sa} - s)!}{(j^{sa} + l_i - l_{sa})! \cdot (j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_s = l_s + n - D}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{l_i}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik}) \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_s - l_{sa} - s)!}{(j^{sa} + l_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik} = l_i + \mathbf{n} + j_{sa}^{ik} - D - s}^{n_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{\binom{D}{j_s}} \sum_{j_i = j^{sa} + s - j_{sa}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}_1}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{\binom{D}{j_s}} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$\begin{aligned} S_{j_{ik}, j_{sa}, j_i}^{j^{sa}, j_i} &= \sum_{k=1}^{(l_i + n - D - s)} \sum_{(j_s = l_s + n - D)}^{(l_i + n - D - s)} \\ &\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \sum_{j_i = l_i + n - D}^n \\ &\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 + k_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \\ &\sum_{(n_{sa} = n + k_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - k_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - l_s)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!}.$$

$$\frac{(l_s + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_s - l_{sa})! \cdot (j_i + j_s - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{j_{ik}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^n.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j^{sa} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{(n_s - 1)} \sum_{j_s=l_i+n-D-s+1}^{(n_s - 1)} \sum_{j_i=j_s+j_{sa}}^{(n_s - 1)} \sum_{j_{ik}=j_{sa}-j_{sa}^{ik}}^{(n_s - 1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n_s - 1)} \\
& \sum_{i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_s - 1)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(n_s - 1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_{Z^S}^{Z^S} &= \sum_{j_{ik}=j^{sa}+j_s-j_{sa}}^{(n_i-j_s)} \sum_{j_{sa}=j^{sa}+1}^{(j_i+j_{sa}-s)} \sum_{j_i=s+1}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=j^{sa}+1}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \sum_{j_i=s+1}^{(j^{sa}+j_{sa}^{ik}-j_{sa})} \\ &\quad \sum_{n+\mathbb{k}}^{(n_i-j_s)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\quad \sum_{n_s=n-j_i+1}^{(n_i-n_{is}-1)!} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\ &\quad \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\ &\quad \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\ &\quad \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\ &\quad \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\ &\quad \frac{(\mathbf{l}_s-2)!}{(\mathbf{l}_s-j_s)! \cdot (j_s-2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + j_{sa} - s + 1)}^{( )} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{sa})} \sum_{(j^{sa} = j_{sa} + j_{sa}^{ik} - j_{sa} - s + 1)}^{(l_{sa})} \\
& \sum_{n_i = n + k_1}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{is} = n + k_1 - j_{ik} - 1}^{n_{is} + j_s - j_{ik} - 1} \\
& \sum_{(n_{ik} = n + k_3 - j_{ik} + 1)}^{(n_{ik} = n + k_3 - j_{ik} + 1)} \sum_{(n_{ik} + j_{sa} - k_2)}^{(n_{ik} + j_{sa} - k_2)} \sum_{j_i = k_3}^{j_i - k_3} \\
& \sum_{(n_s = n + k_3 - j_{ik} + 1)}^{(n_s = n + k_3 - j_{ik} + 1)} \sum_{n_s = n - j_i + 1}^{n_s = n - j_i + 1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - k_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - k_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{2}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}-j_{sa}}^{\binom{D}{2}} \sum_{(j_{sa}=j_i+j_{sa}-s)}^{\binom{D}{2}} \sum_{j_i=s+1}^{l_{sa}+j_{sa}-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{\binom{D}{2}} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{\binom{D}{2}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > n \wedge l_i \leq D + s - n \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D \geq n < n \wedge \mathbb{k} > n \wedge \\
& j_{sa}^{ik} + j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \leq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{2}}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_i+j_{sa}-s)} \sum_{j_i=s+1}^{l_{ik}+j_{sa}^{ik}-s} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}+j_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
\end{aligned}$$

$$\sum_{k=1}^{\binom{D}{l_i}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{l_i}}$$

$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=l_{ik}+j_{sa}^{ik}-s+1}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=s+1}^{l_{ik}+j_{sa}^{ik}-s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}.$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_i+j_{sa}-s)} \sum_{j_i=s+1}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa} - l_s - 1)!}{(j^{sa} + l_i - j_i - l_{sa}) \cdot (j_i + j_{sa} - l_s - 1)!} \cdot \frac{(n - l_i)!}{(n - j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \sum_{j_s=1}^{n_s} \sum_{j_{ik}=j_{sa}+1}^{l_s+j_{sa}-1} \sum_{j_i=l_s+s}^{l_i} \sum_{j_{is}=n+\mathbb{k}-j_{sa}-j_{sa}}^{n_{is}=n+\mathbb{k}-j_s+1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=1}^{(j_s - j_i)} \sum_{j_{sa}=j_i}^{(j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(j_{sa}^{ik}-j_{sa})} \sum_{j_{sa}=j_i}^{(j_{sa}-s)} \sum_{j_i=s+1}^{(j_i-1)}$$

$$\sum_{n_i=n+l_{sa}-j_{sa}}^{(n)} \sum_{n_{ik}=n+l_{sa}-j_{sa}}^{(n)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(n)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_2}}^{(n)} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_{k_3}}^{(n)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s - j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - l_{k_1} - l_{k_2} - l_{k_3})!}{(n_i + n - l_{k_1} - l_{k_2} - l_{k_3})!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$D > n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_i + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f^z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+\dots)}^{(\quad)} \\ &\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j_{sa}=j_s-j_{ik}+j_{sa}^{ik})}^{(l_s)} \sum_{i=j_s-j_{ik}+j_{sa}}^{l_i} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{n_{is}+j_s-j_{ik}} \\ &\sum_{(n_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j_i=n+\mathbb{k}_3-j_{ik}+1)}^{(j_i=n+\mathbb{k}_3-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{ik} - n_{is} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot \\ &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\binom{D}{s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{s}} \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{lk}-j_{sa}}^{\binom{D}{s}} \sum_{(j_{sa}=j_{sa}^{sa}+1)}^{\binom{D}{s}} \sum_{j_i=j_{sa}^{sa}+s-j_{sa}}^{\binom{D}{s}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{lk}-\mathbb{k}_2)}^{\binom{D}{s}} \sum_{(n_{sa}=n_{sa}+j_{sa}^{sa}-j_i)}^{\binom{D}{s}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > n \wedge l_i \leq D + s - n \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{lk} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j_{sa}^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa}^{lk} + 1 = l_s \wedge l_{sa}^{lk} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D \geq n < n - \mathbb{k} > n - \mathbb{k} \wedge \\
& j_{sa}^{lk} - j_{sa}^{lk} - 1 \wedge j_{sa}^{lk} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{lk}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \leq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{\binom{D}{s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{s}}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{(j^{sa}=j_{sa}+1)}^{l_i} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_i+1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_s+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{(j^{sa}=j_{sa}+1)}^{l_i} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s + 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - j_{ik} + j_{sa} - s > -j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
fz S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s + j_i - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (j_i - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa})!}{(j^{sa} + l_i + j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{l_{sa} + j_{sa} - j_{sa}^{ik}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{l_i} \\ &= \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_{is} + j_s - j_{ik} - k_1)} \sum_{(n_{ik} = n + k_2 + k_3 - j_{ik} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{(n_{sa} = n + k_3 - j^{sa} + 1)}^{(n_{sa} + j^{sa} - j_i - k_3)} \\ &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\quad \frac{(n_{sa} - n_s - k_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - k_3)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{j_s=1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} (j_s=j_{ik}-j_{sa}^{ik})$$

$$\sum_{j_{ik}=j_s+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} (j^{sa}=j_{ik}-j_{sa}-j_{sa}^{ik}) \sum_{j_i=j_s+s-j_{sa}}^{j_s+1}$$

$$\sum_{j_{ik}=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}-j_s+1} (n_{is}=\mathbf{n}+j_s+1) \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{j_s+1}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{j_s+1} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$l_i \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$



$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{j_s=j_{ik}+1}^{( )} \sum_{j_{sa}=j_{ik}+1}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^{( )} \sum_{j_{ik}=j_{sa}}^{l_{ik}} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_{ik}+1)} \sum_{n_{is}=n+\mathbb{k}_1+j_{ik}-j_s+1}^{(n_{is}-j_{ik}-\mathbb{k}_1-1)} \sum_{n_{sa}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}-j_{sa}-\mathbb{k}_3)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$



$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{lk}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}^{ik}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{is}=n_{sa}+j^{sa}-j_i)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - j_{sa} - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_i - j_{ik} - 3 \cdot s)!}{(n_i - \mathbb{k}_1 - j_{sa} - \mathbb{k}_3)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > s \wedge l_i \leq D + s - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{lk} + 1 = l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbb{k} > 0 \wedge$$

$$j_{sa}^{lk} - j_{sa}^{lk} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{lk}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{lk}+1}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+lk_2+lk_3-j_i}^{n_{is}+j_s-j_{ik}-lk_1} \\
& \sum_{(n_{sa}=n+lk_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-lk_2)} \sum_{n_s=n+lk_3-j_i+1}^{n_{sa}+j^{sa}-j_i-lk_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-lk_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-lk_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-lk_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_s+j^{sa}-n_s-j_i-lk_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{( )}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{lk}+1}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-lk_1}^{n_{is}+j_s-j_{ik}-lk_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3 \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - j_{ik} + j_{sa} - s > -j_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)}^{l_i}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa})!}{(j^{sa} + l_i + j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{sa} - j_{sa} + 1)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f^z S_{j_s^{sa}, \dots, j_{sa}^{ik}, j_i} \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_s)} \\ & \sum_{j_{ik} - j_s + j_{sa}^{ik} - 1}^{(j_s)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(j_s)} \sum_{j_i = j^{sa} + s - j_{sa}}^{l_i} \\ & \sum_{n_i = \mathbf{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\ & \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$(l_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{k=1}^n \sum_{j_s=1}^{j_s - j_{sa}}$$

$$(\cdot)$$

$$\sum_{j_{ik}=j_s}^{j_{ik}-1} (j^{sa} - j_{sa}^{ik} + j_{sa} - j_{sa}^{ik}) j_{ik} - j_{sa}$$

$$\sum_{n=n+\mathbb{k}}^n (n_{is}=n+j_s+1) \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$(\cdot)$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$n \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$



$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{s=1}^{\binom{()}{s}} \sum_{(j_s=2)}^{\binom{()}{j_s}}$$

$$\sum_{j_{ik}=j_s+j_{sa}-1}^{\binom{()}{j_{ik}}} (j_{sa}=j_{ik}-j_{sa}^{ik}) j_i=j_{sa}^{ik}-j_{sa}$$

$$\sum_{n_i=1}^n (n_{is}=n+j_{sa}-j_{ik}-1) n_{ik}=j_{ik}-j_{ik}+1$$

$$(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2) n_{sa}+j_{sa}-j_i-\mathbb{k}_3$$

$$(n_{sa}=n-\mathbb{k}_3-j_{sa}+1) n_s=n-j_i+1$$

$$\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-1)}^{(\cdot)} \sum_{n_s=n_{sa}+j_{sa}-j_i} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - j_s)! \cdot (j_s - 2)!}{(D - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - 1 \wedge \\
& 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_i + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D \geq n < n - \mathbb{k} = \mathbb{k} > \wedge \\
& j_s < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq 0 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(l_{sa})}^{(l_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{sa}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_{is}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} - \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{( )}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D + j_i - \mathbf{n} - l_i)(\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa}^{ik} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} = l_{ik} \wedge j_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} + 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k}_1 + 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{ik}, \dots, \mathbb{k}_3, j_{sa}^{ik}\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+\mathbf{n}-D}^{l_{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$

$$\sum_{k=1}^{\binom{()}{}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{sa})} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_{sa})} \sum_{j_i = l_{sa} + s - j_{sa} + 1}^n$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - 1)!}{(j^{sa} + l_i + j_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\substack{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \\ (j^{sa}=j_i+j_{sa}-s) \\ j_i=l_i+n-D}}^{\binom{()}{l_{sa}+s-j_{sa}}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{\substack{(n_i-j_s+1) \\ (n_{is}=n+\mathbb{k}-j_s+1)}}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{\substack{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) \\ n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}}^{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}}} \sum_{\substack{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) \\ n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}, j_{sa}}^{(i)} &= \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\ &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j^{sa}=j_{sa}+1)}^{l_{ik}+s-j_{sa}^{ik}} \sum_{j_i=\mathbf{l}_i+\mathbf{n}-D}^{( )} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &\sum_{(n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{l_i!}{(D + j_i - \mathbf{n} - l_i)! \cdot (j_i)!} +$$

$$\sum_{j_i = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa}^{ik} - j_{sa}^{ik})} \sum_{j_i = j_{sa}^{ik} + 1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_i = l_{ik} + s - j_{sa}^{ik} + 1}^{\binom{(\cdot)}{n}} \sum_{j_i = l_{ik} + s - j_{sa}^{ik} + 1}^{\binom{(\cdot)}{n}} \sum_{j_i = l_{ik} + s - j_{sa}^{ik} + 1}^{\binom{(\cdot)}{n}}$$

$$\sum_{j_i = l_{ik} + s - j_{sa}^{ik} + 1}^{(n_i - j_s)} \sum_{j_i = l_{ik} + s - j_{sa}^{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{j_i = l_{ik} + s - j_{sa}^{ik} + 1}^{n_{ik} + \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$



$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + s - j_{sa}^{ik})}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\quad)} \sum_{(j^{sa} = j_i + j_{sa} - j_i - j_{sa} - s + j_{sa}^{ik})} \sum_{(j_i = \mathbf{n} - D + j_i - j_{sa}^{ik} + s - j_{sa}^{ik})}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_i = j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = n_{ik} + j_{sa} - j_{sa}^{ik} - \mathbb{k}_2)}^{(\quad)} \sum_{(n_{sa} = j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - j_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(j_i + j_{sa} - s)} \sum_{(j^{sa} = j_{sa} + 1)}^{l_s + s - 1} \sum_{l_i + n - D}^{(\quad)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + j_{ik} - j_{sa} - \mathbb{k}_1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_i - 1)}^{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)} \sum_{(n_{sa} = n_{ik} - j^{sa} + 1)}^{(n_{ik} - j_{sa} - \mathbb{k}_2 - \mathbb{k}_3 - j_i - \mathbb{k}_3)} \sum_{j_i + 1}^{(n_{sa} = n_{ik} - j^{sa} + 1)} \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{ik}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{is}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - n_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n_i - i_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - l_i + j_{sa} - s > j_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_i+\mathbf{n}+j_{sa}-D-s-1)} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - l_s - s)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_i-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_{sa})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^z \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=j_{sa}+j_{sa}^{ik}-j_{sa}}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \\ & \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(l_i)+j_{sa}-D-s-1} \sum_{j_i=l_i+n-D}^n \\ & \sum_{j_s=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{n_{sa}=n+\mathbb{K}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^n (j_s = j_{ik} - j_{sa} - 1) \cdot \\
& \sum_{k=j^{sa}+j_{sa}^{ik}}^{j^{sa}+j_{sa}^{ik}} (j^{sa} = l_i + j_{sa} - j_{sa}^{ik} - D - s) \cdot \sum_{j_i=j^{sa}+j_{sa}^{ik}}^n (j_s = j_{ik} - j_{sa} - 1) \cdot \\
& \sum_{n_{ik}=n+l_k}^n (n_{is}=n+l_k-1) \cdot \sum_{n_{ik}=n+l_k-1}^{n_{is}+j_s-j_{ik}-l_{k1}} (n_{is}=n+l_k-1) \cdot \\
& \sum_{(n_{sa}=n+l_k-j^{sa}-l_{k2})}^{(n_{sa}=n+l_k-j^{sa}-l_{k2})} (n_{sa}=n+l_k-j^{sa}-l_{k2}) \cdot \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} (n_s=n-j_i+1) \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{\left( \begin{array}{c} \end{array} \right)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{sa}^{ik}-\mathbb{k}_1}$$

$$\frac{\sum_{(n_{ik}+j_{sa}^{ik}-\mathbb{k}_2)-n_{is}}^{(n_i-j_s+1)} \sum_{j_i=j^{sa}+s-j_{sa}-\mathbb{k}_3} \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_{sa}-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-\mathbf{n}-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}}{1}$$

$$\frac{1}{(n+\mathbf{n}+j_i+j_s^s-j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq \mathbf{n} - 1 \wedge l_s \leq \mathbf{n} - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} + j_{sa} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} - l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$l_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$







$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{is}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{(\quad)}$$

$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s \geq l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - \mathbf{n} - l_i - s)! \cdot (j_i + \mathbf{n} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n_{sa}-j_{sa}^{ik}-D-s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$







$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^n (j_s = j_{ik} - j_{sa} - 1) \cdot \\
& \sum_{l_{ik}=l_i+n+j_{sa}-D-s}^{l_{ik}} (j^{sa} = j_{sa} - j_{sa}^{ik}) \cdot \\
& \sum_{j_i=n+l_k}^n (n_{is}=n+l_k+1) \cdot \sum_{n_{ik}=n+l_k+1}^{n_{is}+j_s-j_{ik}-l_{k1}} (n_{ik} = n+l_k+1) \cdot \\
& \sum_{(n_{is}=n+l_k+1)}^{(n_{ik}=n+l_k+1)} (n_{ik} = n+l_k+1) \cdot \sum_{(n_{sa}=n+l_k-j_{sa}-l_{k2})}^{(n_{sa}=n+l_k-j_{sa}-l_{k2})} (n_{sa} = n+l_k-j_{sa}-l_{k2}) \cdot \\
& \sum_{(n_{sa}=n+l_k-j_{sa}-l_{k2})}^{(n_{sa}=n+l_k-j_{sa}-l_{k2})} (n_{sa} = n+l_k-j_{sa}-l_{k2}) \cdot \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1} (n_s = n-j_i+1) \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}}^{(\quad)} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{\mathbf{l}_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_{ik}^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(j_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{j_{ik}-j_s-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s \geq 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} - 1 \wedge$$

$$1 \leq j_{sa} < j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s + \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} - \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$\mathbf{n} - \mathbf{l}_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$







$$\begin{aligned}
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}+j_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{( )}$$

$$\begin{aligned}
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - l_i + j_{sa} - s > j_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{\mathbf{n}}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}$$

$$\frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{sa}-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_s - s)!}{(j^{sa} + l_i - l_s - s)! \cdot (j_i + l_i - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{sa} - j_{sa} + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_{ik} + j_{sa}^{lk} - 1}^{(j_{ik} - j_s + 1)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})} \sum_{j_i = j^{sa} + s - j_{sa}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j_s+j_{sa}}^{j_{ik}=j_s+j_{sa}} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{j_s=1}^{j_s=D-s} \sum_{j_s=2}^{j_s=D-s} \\ & \sum_{j_{ik}=j_s+j_{sa}}^{j_{ik}=j_s+j_{sa}} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{j_i=l_i+n-D}^{j_i=l_i+n-D} \\ & \sum_{n=\mathbb{K}}^{n=\mathbb{K}} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}=n+\mathbb{K}-j_s+1} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{n_{sa}=n+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_i - j_{sa}^{ik} + 1)} \frac{(l_i - j_{sa}^{ik} + 1)!}{(j_s = l_i + n - j_i - s + 1)!} \cdot \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - (j^{sa} = j_{ik} + j_{sa} - j_i)}^{(j^{sa} = j_{ik} + j_{sa} - j_i)} \sum_{j_i = j^{sa} + s - j_{sa}}^{(j^{sa} = j_{ik} + j_{sa} - j_i)} \cdot \\
& \sum_{n_i = n + \mathbb{k}_1}^n \frac{(n_i - j_i + 1)!}{(n_i - n + \mathbb{k}_1 - j_s + 1)!} \sum_{j_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_i - j_i + 1)!} \sum_{n_{sa} = n - j_i + 1}^{(n_{sa} = n - j_i + 1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\sum_{j_s=l_i+n-D-s+1}} \sum_{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j_{sa}+s-j_{sa}^{ik}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-j_{ik}-\mathbb{k}_1 \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa}^{lk} - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{lk} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa}^{ik} \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa}^{lk} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\
& D + s - n < n \leq D + l_s + s - n - 1 \wedge \\
& D < n < n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq 6 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$



$$\begin{aligned}
 f_{zS_{j_s, j_{ik}, j^{sa}, j_i}} &= \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+n-n}^n \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \\
 &\sum_{(n_{sa}=n+k_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{n_s=n-j_i-k_3}^{n_{sa}+j^{sa}-j_i-k_3} \\
 &\frac{(n_i-n_{ik}-k_1-1)!}{(j_s-2)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \cdot \\
 &\frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}+j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\frac{(n_{sa}-n_s-k_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-k_3)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{lk} - 1}^{( )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})}^{( )} \sum_{j_i = j^{sa} + s - j_{sa}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - \mathbf{l})!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)!(\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s > 1 \wedge \mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{( )} \sum_{j_i = s + 1}^{l_{ik} + j_{sa}^{ik} - s}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} +$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{i_k=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_{ik}+j_{sa}^{ik}-s+1}^{l_i}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$



$$\begin{aligned} & j_{ik} \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \end{aligned}$$



$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{j_s=j_{ik}-j_{sa}+1}^{(\quad)} \sum_{j_{ik}=j_{sa}-1}^{(\quad)} \sum_{j_i=j_s+1}^{j_{sa}+j_{sa}^{ik}-j_s} \sum_{j_{sa}=j_{ik}-s}^{(\quad)} \sum_{j_i=s+1}^{j_{sa}-s} \sum_{n_i=n+\mathbb{k}}^{(n_i-1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}-1)} \sum_{n_{sa}=n_{ik}-j_{sa}-\mathbb{k}_2}^{(n_{sa}-1)} \sum_{n_s=n-j_i+1}^{(n_s-1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_i+j_{sa}^{ik})}^{\binom{()}{j_{sa}=j_i+j_{sa}^{ik}}} \sum_{j_i=l_s+s}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_s+1)}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-1)} \sum_{j_i+1}^{n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_2} \\
& \frac{(n_{is}-n-\mathbb{k}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
& \frac{(n_{is}-n-\mathbb{k}_1-1)!}{(j_{ik}-j_{sa}^{ik}-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_{sa}^{ik}-1)! \cdot (n_{sa}+j_{sa}^{ik}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}^{ik}-l_{ik})! \cdot (j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s+1}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!} \cdot \\
& \frac{1}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-3 \cdot s)!} \cdot \\
& \frac{(j_s-1)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(n-l_i)!}{(D-j_i-n-l_i)! \cdot (n-j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq n + s - n$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - j_{sa}^{ik} \wedge j^{sa} + j_{sa} - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - j_{sa}^{ik} + j_{sa} = l_s \wedge l_s + j_{sa}^{ik} - j_{sa} > l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = n > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq n - l_s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa}) j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}^{ik}-s+1)}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s + j_i - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{(j^{sa}=j_{sa}+1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\ &\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\ &\sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_s=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{l_s}}$$

$$\sum_{j_{sa}^{ik}=1}^{l_s} \sum_{j_{sa}=l_s+j_{sa}}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=1}^n \sum_{n_{is}=n+\mathbb{k}_1-1}^{(n_{is}+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}-\mathbb{k}_2}^{(n_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{2}} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{lk} - j_{sa}}^{\binom{D}{2}} \sum_{(j^{sa} = j_{sa} + 1)}^{\binom{D}{2}} \sum_{j_{ik} = j^{sa} + s - j_{sa}}^{\binom{D}{2}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{\binom{D}{2}} \\
& \sum_{(n_{is} = n_{ik} + j_s - j_{sa} - \mathbb{k}_2)}^{\binom{D}{2}} \sum_{(n_{is} = n_{ik} + j_s - j_{sa} - \mathbb{k}_3)}^{\binom{D}{2}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq 2 + s - 2 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
f_z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=j_{sa}^{lk}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)} \\
&\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa}+j_i-\mathbb{k}_3)}^{(\quad)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{(\quad)} \sum_{n_s=\mathbf{n}-j_i+\mathbb{k}_3}^{(\quad)} \\
&\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-j_{ik}-1)!} \cdot \\
&\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
&\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} - \\
&\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=j_{sa}^{lk}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D - j_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3 - \mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa}^{sa} + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_{sa} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{sa}, \mathbb{k}_2, j_{sa}^{ik}, \dots, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}$$

$$\frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (\mathbf{n} - j_i)!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{lk}+1}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}.$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{lk} - j_{sa} - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(\mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{j_{sa}^{ik}+1} \sum_{(j_s=2)}^{j_s}$$

$$\sum_{(j_s=j_s+j_{sa}^{lk})}^{(j_s=j_s+j_{sa}^{lk})} \sum_{(j_i=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j_i=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(j_s)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_s=1}^{(l_s)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_i-j_s)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \\ & \sum_{n+\mathbb{k}}^{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa})} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa})}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1)}^{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k}_3)}^{(n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - j_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_i + j_{sa} - s)}^{(\quad)} \sum_{l_{ik} = s - j_s}^{(\quad)} \sum_{l_i = n - D}^{(\quad)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_i - j_s + 1)} \sum_{j_i = 1}^{(n_{sa} = n - j^{sa} + 1)} \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_s - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{ik}+s-j_{sa}^{ik}+1}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{ik}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_{ik}+s-j_{sa}^{ik}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - n)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^i < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_2)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_2)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j^{sa}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^{z \cup j_{sa}^{ik} - j_{sa}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=j_{sa}+s-j_{sa}}^{\sum_{j_i=j_{sa}+s-j_{sa}}} \\ & \sum_{j_s=j_{sa}^{ik}+1}^{j_{sa}^{ik}-j_{sa}} \sum_{j_i=l_i+n+j_{sa}-D-s}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j_{sa}+s-j_{sa}} \\ & \sum_{n_i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{s=1}^{l_i} \sum_{j_s=j_{ik}-j_{sa}^{l_i}}^{j_{ik}-j_{sa}^{l_i}-s} \sum_{j_{ik}=j_{sa}^{l_i}}^{l_{ik}} \sum_{j_{ik}=j_{sa}^{l_i}}^{j_{sa}=l_{ik}-j_{sa}^{l_i}+1} \sum_{j_i=j_{sa}^{l_i}-j_{sa}^{l_i}-s}^{j_{sa}^{l_i}-j_{sa}^{l_i}-s} \\
& \sum_{n_{ik}=n+l_{k_1}}^n \sum_{n_{is}=n+l_{k_1}+1}^{(n_{ik}-j_s+1)} \sum_{n_{ik}=n+l_{k_2}+l_{k_3}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{n_{sa}=n+l_{k_3}-j^{sa}-l_{k_2}}^{(n_{ik}-j_{sa}-l_{k_2})} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_{k_3}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k_3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k_3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{(n_{ik}=n_{is}+j_s-j_{sa}^{ik}-\mathbb{k}_1)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_i + j_{sa}^s - j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s \leq \mathbf{n} - 1 \wedge l_s \leq \mathbf{n} - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} + j_{sa} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} - l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$I \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}-\mathbb{k}_1}^{n_{is}+j_s-\mathbb{k}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\sum_{(n_{is}-j_{ik}-\mathbb{k}_1)}^{(n_{is}-j_{ik}-\mathbb{k}_1)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{is})}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{lk}+1}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-j_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^i < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(D + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{lk} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{\binom{(\quad)}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_2)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_2)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_i+l_{sa}-j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f^{z \cup j_{sa}^{ik}, j_{sa}^{ik}, j_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=j_{sa}+s-j_{sa}}^{\sum_{j_i=j_{sa}+s-j_{sa}}} \\ & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-s-1} \sum_{j_s=l_i+n+j_{sa}-D-s}^{(n-j_{sa}-s)} \sum_{j_i=j_{sa}+s-j_{sa}}^{\sum_{j_i=j_{sa}+s-j_{sa}}} \\ & \sum_{i=n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ & \sum_{n_{sa}=n+\mathbb{K}_3-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \end{aligned}$$







$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk}), \dots, (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \frac{(l_s - j_s)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!}.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{l_s}=\mathbf{n}+\mathbb{k}+j_s-j_{ik}-\mathbb{k}_1, \dots, n_{l_s}=\mathbf{n}+\mathbb{k}+j_s-j_{ik}-\mathbb{k}_1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2), \dots, (n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2), \dots, (n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \frac{(n_i - j_s + 1)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$j_{sa} - j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i + n - D - s)} \sum_{(j_s=2)}^{(l_i + n - D - s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_s+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}-j^{sa}-\mathbb{k}_2-j_{sa}+j_i-\mathbb{k}_3)} \sum_{j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_i-n_{is}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{(l_{ik}-j_{sa}^{lk}+1)} \sum_{(j_s=l_i+n-D-s+1)}
\end{aligned}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(D + j_i - n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_2)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_2)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(l_s)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{( )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \sum_{j_i = j^{sa} + s - j_{sa}}^{( )} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f^{z \cup j_{sa}^{ik} - j_{sa}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=j_{sa}^{ik}+1}^{\sum_{j_i=j_{sa}^{ik}+1}} \\ & \sum_{j_s=j_{sa}^{ik}+1}^{j_{sa}^{ik}-j_{sa}} \sum_{j_i=j_{sa}^{ik}+1}^{(j_i=j_{sa}^{ik}-j_{sa})} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^{l_{ik}+s-j_{sa}^{ik}} \\ & \sum_{i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1} \\ & \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} \cdot \sum_{k=0}^{\mathbf{l}_i} \sum_{l=0}^{\mathbf{l}_i - k} (j_s = j_{ik} - j_{sa}^{lk}) \cdot \sum_{j_{ik}=l_{ik}+1}^{\mathbf{l}_{ik}} \sum_{j_{sa}=j_{sa}^{lk}+1}^{\mathbf{n}} \sum_{n_{is}=n+l_{ik}-j_{sa}+1}^{(n-j_s+1)} \sum_{n_{ik}=n+l_{k_2}+l_{k_3}-j_{ik}+1}^{(n-j_{ik}-j^{sa}-l_{k_2})} \sum_{n_{sa}=n+l_{k_3}-j^{sa}+1}^{(n-j_{ik}-j^{sa}-l_{k_2})} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_{k_3}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - l_{k_3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k_3})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(\mathbf{l}_{sa} + j_{sa}^{ik} - \mathbf{l}_{ik} - j_{sa})!}{(j_{ik} + \mathbf{l}_{sa} - j^{sa} - \mathbf{l}_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=\mathbf{l}_{sa}+j_{sa}-s-D-j_{sa}}^{\mathbf{l}_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{sa}^{ik}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{sa}^{ik}-\mathbb{k}_1}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + j_i + j_{sa}^s - j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s \leq \mathbf{n} - 1 \wedge \mathbf{l}_s \leq \mathbf{n} - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} + j_{sa} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$\mathbf{l}_s \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+n+s-D-j_{sa}}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}-\mathbb{k}_1}^{n_{is}+j_s-\mathbb{k}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\sum_{(n_{is}-j_{ik}-\mathbb{k}_1)}^{(n_{is}-j_{ik}-\mathbb{k}_1)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i+j_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}+j_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+\mathbf{n}+s-D-j_{sa}}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbf{n} - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s - j_{sa} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_2)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_2)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{(j^{sa} = l_{sa} + \mathbf{n} - D)}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_i - j_s + 1)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f^z \sum_{j_s=j_{sa}^{ik}-j_{sa}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=j_{sa}^{ik}-j_{sa}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \\ & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\mathbf{l}_{sa}+\mathbf{n}-D)}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=j_{sa}^{ik}+s-j_{sa}}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \\ & \sum_{i=\mathbf{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ & \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{l_s} \sum_{j_{ik}=j_s}^{l_{ik}} \sum_{j_{sa}=j_{ik}-j_s}^{l_{sa}} \frac{(n - j_s - 1)!}{(n - j_s - 1)!} \cdot \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{j_{sa}=l_s+j_{sa}}^{l_s} \sum_{j_i=j_s+j_{ik}-j_{sa}}^{l_s+j_{sa}-j_s} \frac{(n - j_i - 1)!}{(n - j_i - 1)!} \cdot \\
& \sum_{n_{ik}=n+l_{k_2}+l_{k_3}-j_{ik}+1}^n \sum_{n_{is}=n+l_{k_1}-j_{ik}+1}^{(n - j_i + 1)} \sum_{n_{sa}=n+l_{k_3}-j_{sa}+1}^{(n_{is}+j_s-j_{ik}-l_{k_1})} \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k_3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k_3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j_{sa}=l_{sa}+\mathbf{n}-D)}^{(l_s+j_{sa}-1)} \sum_{j_{ik}=j_{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}_1}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_s \leq D - \mathbf{n} \leq 2 \wedge$$

$$1 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_{ik} + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} \leq l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D - \mathbf{n} \leq l_{sa} \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$







$$\begin{aligned}
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{lk}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_2} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{ik}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{is}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{lk}+1}} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{lk}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{\binom{()}{j_s=j_{ik}-j_{sa}^{lk}+1}} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s - j_{sa} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(n+j_{sa}-s)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - \mathbb{k}_2)!}{(j_{ik} + l_{sa} - j^{sa} - \mathbb{k}_2)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{l_s - j_s - 1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(\cdot)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} & f z^{\mathbb{K}} j_{sa}^{ik}, j_{sa}^{sa}, j_i \\ & \sum_{(j_s=2)}^{(l_{sa}-D-j_{sa})} \sum_{(j_{ik}=j_s+j_{sa})}^{(j_{sa}=l_{sa}+n-D)} \sum_{(j_i=j_{sa}+s-j_{sa})}^{(j_{sa}=l_{sa}+n-D)} \\ & \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{K}_1)} \\ & \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{ik} - l_{sa}^{ik} + 1)} \frac{(l_{ik} - l_{sa}^{ik} + 1)!}{(l_{sa} + n - l_{sa}^{ik} - j_{sa} + 1)!} \cdot \\
& \sum_{j_{ik}=j_s + j_{sa}^{lk}}^{(n - l_i - s)} \frac{(n - l_i - s)!}{(l_{ik} + j_{sa} - j_s - j_{sa}^{lk})!} \cdot \sum_{j_i=j^{sa} + s - j_{sa}}^{(n - l_i - s)} \frac{(n - l_i - s)!}{(j^{sa} + s - j_{sa})!} \cdot \\
& \sum_{n_i=n + \mathbb{k}}^{(n_i - \mathbb{k}_1 + 1)} \frac{(n_i - \mathbb{k}_1 + 1)!}{(n_i + \mathbb{k} - j_s + 1 - \mathbb{k}_1)!} \cdot \sum_{n_{sa}=n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{(n_{sa} - j^{sa} - \mathbb{k}_2)} \frac{(n_{sa} - j^{sa} - \mathbb{k}_2)!}{(n_{sa} + j_i - \mathbb{k}_3)!} \cdot \sum_{n_s=n - j_i + 1}^{(n_{sa} - j^{sa} - \mathbb{k}_3 - j^{sa} + 1)} \frac{(n_{sa} - j^{sa} - \mathbb{k}_3 - j^{sa} + 1)!}{(n_s - j_i + 1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-j_{ik}-\mathbb{k}_1 \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - j_i - \mathbb{k}_1 - j_{sa} - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_i - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n - l_{sa} \leq D - l_s + j_{sa} - n - 1 \wedge$$

$$D > n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz_{j_s, j_{ik}, j^{sa}, j_i}^S &= \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(n+j_{sa}-s)} \\
&\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
&\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_s-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
&\sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{sa}+j^{sa}-j_i-l_{k3})} \sum_{(n_{sa}=n+l_{k3}-j_{ik}+1)}^{(n_{sa}+j^{sa}-j_i-l_{k3})} \sum_{n_s=n-j_i}^{(n_{sa}+j^{sa}-j_i-l_{k3})} \\
&\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
&\frac{(n_{is}-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
&\frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
&\frac{(n_{sa}-n_s-l_{k3}-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-l_{k3})!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
&\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\sum} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\sum} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{\sum} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{\sum} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{\sum}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(j_i + j_{sa} - s)} \sum_{j_i = s + 1}^{l_{ik} + j_{sa}^{ik} - s}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(l_i + j_i - l_{sa} - 1)!}{(j^{sa} + l_i - l_{sa} - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{\binom{D}{l_i}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{l_i}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \sum_{j_i=l_{ik}+j_{sa}^{ik}-s+1}^{l_i}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$



$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_{Z^s}^{j_{sa}^{ik}}(j_{sa}^{ik}) &= \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)} \\ &\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_i+j_{sa}-s)}^{(j_i+j_{sa}-s)} \sum_{j_i=s+1}^{l_s+s-1} \\ &\sum_{j_{ik}=j_{sa}^{ik}+1}^{(n_i-j_s)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=1}^{( )} (j_s = j_i + j_{sa}^{ik} + 1)$$

$$\sum_{j_{ik}=l_{sa}+1}^{l_s+j_{sa}-1} \sum_{j_{sa}=j_{ik}+1}^{(l_{sa})} \sum_{j_i=l_s+s}$$

$$\sum_{n_i=n+l_k}^{(n_i+l_k-1)} \sum_{n_{ik}=n+l_k-j_s+l_{sa}-l_{ik}-k_1}^{(n_i+l_k-1)} \sum_{n_{sa}=n+l_k+l_{sa}-j_{ik}+1}^{(n_i+l_k-1)}$$

$$\sum_{n_{ik}=n+l_k-j^{sa}-k_2}^{(n_{ik}+j_{sa}-k_2)} \sum_{n_{sa}=n+l_k+l_{sa}-j_i-k_3}^{(n_{sa}+j_{sa}-k_3)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j_{sa}-k_3-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - k_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - k_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}}^{(\quad)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=s+1}^{l_s+}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-\mathbb{k}_1}^{(n_i-j_s+1)}$$

$$\sum_{(j_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{(j_i=j_i-\mathbb{k}_3)}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge \mathbf{l}_i \leq 2 + s + 2 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{j_i=j_{sa}+s}^{l_i} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
 &\sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2-j_i-\mathbb{k}_3)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1} \\
 &\frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (l_i-j_s+1)!} \cdot \\
 &\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
 &\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 &\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j_{sa}=l_{ik}+j_{sa}^{ik}-s+1)}^{(l_{sa})} \sum_{j_i=j_{sa}^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)!(n_{is}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!(\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)!(\mathbf{n}-j_i)!} - \\
& \sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\quad} \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}^{ik}-s)} \sum_{(j_{sa}=j_{sa}+1)}^{(l_{sa}+j_{sa}^{ik}-s)} \sum_{j_i=j_{sa}^{sa}+s-j_{sa}}^{l_i}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D + j_i - \mathbf{n} - l_s)(\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_s \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_s - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_s^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: Z = 3, \mathbb{k}_Z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{lk} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - j_{ik} - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + l_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} S_{i_s, j_s} \cdot j_i &= \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\ &\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i = j^{sa} + s - j_{sa}}^{l_i} \\ &\sum_{n_i = \mathbf{n} + \mathbb{K}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{K} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1} \\ &\sum_{(n_{sa} = \mathbf{n} + \mathbb{K}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{K}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(\mathbf{n} - l_i - 1)! \cdot (\mathbf{n} - j_i)!}$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{j_i=j^{sa}+s-j_{sa}}^{\sum_{j_i=j^{sa}+s-j_{sa}}} \sum_{j_i=j^{sa}+s-j_{sa}}^{\sum_{j_i=j^{sa}+s-j_{sa}}}$$

$$\sum_{i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{\sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} > \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_{z^s}^{j_{sa}^{ik}} &= \sum_{j_{sa}^{ik}-j_{sa}^{ik}+1}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}} \sum_{j_i=j_{sa}^{ik}+s-j_{sa}}^{l_i} \sum_{j_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-j_s)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\quad \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j_{sa}^{ik}-j_i-\mathbb{k}_3} \\ &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\quad \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \\ &\quad \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa}^{ik} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\quad \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\quad \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=1}^{(j_s=j_i-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}}^{l_s+j_{sa}^{ik}-1} \sum_{j_{ik}+j_{sa}-j_s=j_i=j_{sa}+s-j_{sa}}^{(n-j_i+1)} \sum_{n_i=n+k}^{(n_i=n+k-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(n_i=n_{ik}+j_{ik}-j_{sa}-k_2)} \sum_{n_s=n_{sa}+j_{sa}-j_i-k_3}^{(n_i=n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i+2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - k_1 - k_2 - k_3)!}{(n_i+n-k_1-k_2-k_3)!} \cdot \frac{1}{(n+2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}.$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j_{sa}=j_{ik}+j_{sa})}^{(l_{sa})} \sum_{(j_i=j_s+j_{sa}-j_{sa})}^{l_i}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{n_{is}+j_s-j_{ik}}$$

$$\sum_{(n_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(j_i-\mathbb{k}_3)}^{(j_i-\mathbb{k}_3)}$$

$$\sum_{(n_{sa}-n_s-\mathbb{k}_3-1)}^{(n_{sa}-n_s-\mathbb{k}_3-1)} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$



$$\begin{aligned}
& \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{sa}^{lk} - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{sa}^{lk} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{lk} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - j_{sa}^{lk} \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{lk} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_s \leq D + l_s + s - n - 1 \wedge$$

$$D < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n}^{l_{ik}+s-j_{sa}^{ik}} \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{sa})} \sum_{n_s=n-j_i+l_{sa}}^{(n_{ik}+j_{ik}-j^{sa}-l_{sa})} \\
&\frac{(n_s-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \cdot \\
&\frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
&\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
&\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_{ik}+s-j_{sa}^{ik}+1}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{ik}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_i=l_i+n-D}^{l_{ik}+s-j_{sa}^{ik}}
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - j_i - n - l_i - n - j_i)!}{(D - j_i - n - l_i - n - j_i)!}.$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa}^{sa} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa}^{ik} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - l_{sa} - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k}_1 + 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{sa} \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{sa}, \dots, \mathbb{k}_3, j_{sa}^s\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(j_i+j_{sa}-s)} \sum_{j_i=l_i+n-D}^{l_s+s-1}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{\binom{(\quad)}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(l_{sa})} \sum_{j_i=l_s+s}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}^{ik}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j_{sa} = l_{sa} + \mathbf{n} - D)}^{(l_i + \mathbf{n} + j_{sa} - D - s - 1)} \sum_{j_i = l_i + \mathbf{n} - D}^{\mathbf{n}}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^{\mathbf{n}} \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j_{sa} - j_i - \mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_i=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=l_i+j_{sa}-D-s)}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j_{sa}^{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{n_{is}=\mathbf{n}+\mathbb{k}_1}^{(n_i-\mathbf{n}-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_{is}=\mathbf{n}+\mathbb{k}_1-j_s+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j_{sa}^{ik}, j_i} = \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=l_i+n-D}^{j_i=l_i+n-D} \sum_{j_{ik}=j_{sa}^{ik}}^{j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}^{ik}+n+j_{sa}^{ik}-1} \sum_{j_{sa}=j_{sa}^{ik}}^{j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}^{ik}+n+j_{sa}^{ik}-1} \sum_{n_i=n}^{n_i=n} \sum_{n_{is}=n+\mathbb{k}_1+1}^{(n_i-1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-1)} \sum_{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}^{(n_i-1)} \sum_{n_s=n-j_i+1}^{(n_i-1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa}^{ik} - 1)! \cdot (n_{sa} + j_{sa}^{ik} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{( )} \sum_{j_s=j_i+l_{sa}+1}^{( )} (j_s - j_i - l_{sa} + 1)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_i=\mathbf{n}+j_{sa}-D}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{(n_i+j_{sa}-1)} \sum_{(n_i+j_{sa}-1)-\mathbb{k}_1}^{(n_i+j_{sa}-1)} \sum_{n_i=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i+j_{sa}-1)}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
& \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = l_s + j_{sa})}^{(l_{sa})} \sum_{j_i = j^{sa} + s - j_{sa}}^n \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_i + 1}^{n_{is} + j_s - \mathbb{k}_1} \\
& \sum_{(n_{sa} = j_{sa}^{ik} - \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - 1)} \sum_{j_i = 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_2} \\
& \frac{(n_{is} - n - \mathbb{k}_1 - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}^{lk}}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{(\quad)}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_{sa}-j_{ik}-2 \cdot s-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-j_i-\mathbb{k}_1-j_{sa}-\mathbb{k}_3)!}.$$

$$\frac{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_{sa}-j_{ik}-3 \cdot s)!}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_{sa}-j_{ik}-3 \cdot s)!}.$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}.$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_{sa}^{lk}+j_{sa}^{ik}-1 \leq j_{ik} \leq j_{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j_{sa} \leq j_i+j_{sa}-j_{sa}^{lk} \wedge j_{sa}+s-j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik}-j_{sa}^{lk}+1=l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} > l_{ik} \wedge l_i+j_{sa}-s > l_{sa} \wedge$$

$$D+s-n \leq l_s \leq D+l_i+s-n-1 \wedge$$

$$D > n \wedge I= \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^s < j_{sa}^{ik}-1 \wedge$$

$$s: \{j_{sa}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
f_Z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
&\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_i+n}^n \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{sa}=n+\mathbb{k}_3-j_i+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j^{sa}-1)} \sum_{(j_i-j^{sa}-1)}^{(n_{sa}-n_s-\mathbb{k}_3-1)} \\
&\frac{(n_s-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-1)!} \cdot \\
&\frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
&\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
&\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{(l_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{sa}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_{is}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{lk}-l_{ik}-j_{sa})!}{(l_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{lk}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{\binom{()}{}} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{\binom{()}{}} \sum_{j_i=j_{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D + j_i - \mathbf{n} - l_i)(\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_{sa} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge j_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} + 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, \mathbb{k}_3, j_{sa}^s\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_i+n-D}^n$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_i + j_i - n_s - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$

$$\sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+l_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - l_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{lk} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{lk}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{lk})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{is}=n+l_1-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_3}^{( )}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(l_{sa})} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + l_{sa} - l_{sa} - s)!}{(j_i + l_i - j_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i - n_s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - l_{ik})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(j_s = l_i + \mathbf{n} - D - s + 1)} \cdot \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j_{ik} = j_s + j_{sa}^{ik} - 1)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_i = j^{sa} + s - j_{sa}}^{(j_i = j^{sa} + s - j_{sa})} \cdot \\
& \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_s - j_{ik} - \mathbb{k}_1}^{(n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \cdot \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3}^{(n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3)} \cdot \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot
\end{aligned}$$



$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} j_{sa}^{ik} - j_{sa}^{ik} + 1 &= \sum_{k=1}^{(l_{sa})} \sum_{(j_s=2)}^{(D-s)} \\ &\sum_{j_{ik}=j_s-j_{sa}^{ik}+1}^{(l_{sa})} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n+\mathbb{K}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{K}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &= \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &\sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=l_i+n-D-s+1}^{l_i} \sum_{j_{ik}=j_s+l_{ik}-1}^{l_{sa}} \sum_{j_{sa}=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}} \sum_{j_i=j_s-j_{sa}}^n \\
& \sum_{n_{ik}=n+l_{ik}}^n \sum_{n_{is}=n+l_{ik}-1}^{j_s+1} \sum_{n_{ik}=n+l_{ik_2}+l_{ik_3}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
& \sum_{n_{sa}=n+l_{k_3}-j^{sa}+1}^{(n_{is}-j_{ik}-j^{sa}-l_{k_2})} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_{k_3}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k_3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k_3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{\sum} \sum_{(j_s=l_i+n-D-s+}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{ik}=j_s+j_{sa}^{ik}-1)} \sum_{(j^{sa}=j_{ik}+j_{sa}^{sa}-j_s)}^{(j^{sa}=j_{ik}+j_{sa}^{sa}-j_s)} \sum_{(j^{sa}=j_{ik}+j_{sa}^{sa}-j_s)}^{(j^{sa}=j_{ik}+j_{sa}^{sa}-j_s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1)}^{(n_{ik}=j_s-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{(n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{sa} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned}
 f_Z S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n_i-j_s+1)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(l_s+s-1)} \sum_{j_i=s+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \\
 &\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{sa}+j^{sa}-n_{is}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_2)} \sum_{(j^{sa}=1)}^{(n_{sa}+j^{sa}-n_{is}-\mathbb{k}_3)} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{sa} - n_s - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{ik}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s+1}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} = j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - l_i + j_{sa} - s = j_i \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_s^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - j_s^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_{sa})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_{sa}=j_{sa}+1}^{( )} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_s}^{(j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(j_{sa}+1)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_s}^{(j_{sa}-1)} \sum_{j_{sa}=j_{sa}+1}^{(j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(j_{sa}+1)}$$

$$\sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-1)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}$$

$$\frac{(n_{sa} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{\binom{j_s + j_{sa}^{ik} + 1}{j_s}} \sum_{i=0}^{l_s + j_{sa}^{ik} - 1} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\binom{l_s + j_{sa}^{ik} - 1}{j_{ik} - j_s + 1}} \sum_{j_{sa} = j_{sa}^{ik} + 1}^{\binom{l_s + j_{sa}^{ik} - 1}{j_{sa} - j_{ik} + j_{sa} - j_{sa}^{ik}}} \sum_{n = n + \mathbb{k}}^{\binom{n_i - j_s + 1}{n_{is} = n + \mathbb{k}_1 + 1}} \sum_{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{\binom{n_{is} + j_s - j_{ik} - \mathbb{k}_1}{n_{ik} = n + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}} \sum_{n_{sa} = n + \mathbb{k}_3 - j_{sa} - \mathbb{k}_2}^{\binom{n_{ik} + j_{sa} - j_{sa} - \mathbb{k}_2}{n_{sa} = n + \mathbb{k}_3 - j_{sa} - \mathbb{k}_2}} \sum_{n_s = n - j_i + 1}^{\binom{n_{sa} + j_{sa} - j_i - \mathbb{k}_3}{n_s = n - j_i + 1}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_{sa}^{sa+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2, n_{is}=\mathbf{n}+\mathbb{k}_1}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \sum_{(n_{sa}+j_{sa}-j_i-1)}^{(n_{sa}+j_{sa}-j_i-1)} \\
& \frac{(n_{ik}+j_{ik}-j_{sa}^{ik})!}{(n_{sa}+j_{sa}-j_i-1)!} \cdot \frac{(n_{is}-1)!}{(n_{is}-j_s+1)!} \cdot \frac{(n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_{ik}-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} - \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j_{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - j_s)! \cdot (j_s - 2)!}{(l_s - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > 1 \wedge l_i \leq j_i + s - n \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + j_{sa} - j_{sa} \leq j_i \leq n \wedge \\
& l_i - j_{sa}^{ik} + j_{sa} \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D \geq n < n \wedge l_i = j_i + s - n > 0 \wedge \\
& j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s > n - l_i = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$f_z S_{j_s, j_{ik}, j_{sa}^{ik}, j_i} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j_{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)}
\end{aligned}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{ik} = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{\mathbf{S}}_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s+s-1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_s+s-1)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(j_s+s-1)} \sum_{j_i=l_i+n-D}^{(j_s+s-1)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\
& \sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{j_{sa}=j_i}^{(\cdot)} \sum_{j_{sa}^{ik}=j_{sa}+1}^{(\cdot)} \sum_{j_{sa}^{ik}=j_{sa}+1}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_s}^{(\cdot)} \sum_{j_{sa}=j_i+j_{sa}-s}^{(\cdot)} \sum_{j_i=l_i+\mathbf{n}-D}^{(\cdot)} \sum_{j_i=l_i+\mathbf{n}-D}^{(\cdot)}$$

$$\sum_{n=\mathbb{k}}^{(n_i-1)} \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\cdot)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\cdot)}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z^S j_s, j_{ik}, j_{sa}^{ik} &= \sum_{j_s=1}^{\mathbb{k}+1} \sum_{(j_s=2)}^{\mathbb{k}+1} \\ &\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{\mathbf{l}_s+j_{sa}} \sum_{j_i=j_{sa}+s-j_{sa}}^{\mathbf{l}_s+j_{sa}-j_{ik}-\mathbb{k}_1} \\ &\sum_{n_i=n}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+1)}^{(n_i-\mathbf{n}-1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{is}-n_{ik}-\mathbb{k}_1-1)} \\ &\sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{n_{sa}} \sum_{n_s=\mathbf{n}-j_i+1}^{n_s} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \frac{(n + j_{sa} - s)!}{(j_{sa} = l_s + j_{sa} - j_{sa} - j_{sa})} \cdot \\
& \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_s+j_{sa}-j_{sa})}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_s+j_{sa}-j_{sa})}^{(n+j_{sa}-s)} \cdot \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{ik}-l_k)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_{ik}-l_k)}^{(n_{is}+j_s-j_{ik}-l_k)} \sum_{(n_{is}=n+l_k-j_{ik}-l_k)}^{(n_{is}+j_s-j_{ik}-l_k)} \cdot \\
& \sum_{(n_{ik}=n+l_k-j_{ik}-l_k)}^{(n_{ik}+j_{sa}-l_k)} \sum_{(n_{ik}=n+l_k-j_{ik}-l_k)}^{(n_{ik}+j_{sa}-l_k)} \sum_{(n_{ik}=n+l_k-j_{ik}-l_k)}^{(n_{ik}+j_{sa}-l_k)} \cdot \\
& \sum_{(n_{is}=n+l_k-j_{ik}-l_k)}^{(n_{is}+j_s-j_{ik}-l_k)} \sum_{(n_{is}=n+l_k-j_{ik}-l_k)}^{(n_{is}+j_s-j_{ik}-l_k)} \sum_{(n_{is}=n+l_k-j_{ik}-l_k)}^{(n_{is}+j_s-j_{ik}-l_k)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_k - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_k)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_k - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}} \sum_{(j_{sa}=\mathbf{l}_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{l}_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}^{lk}}^{(\quad)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{lk}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{is}=n_{sa}+j_{sa}^{lk}-j_i)}^{(\quad)}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_{sa}^{lk}-2 \cdot s-\mathbb{k}_1-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-j_i-\mathbb{k}_1-j_{sa}^{lk}-\mathbb{k}_3)!}$$

$$\frac{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{lk}-j_{sa}^{lk}-j_{ik}-3 \cdot s)!}{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{lk}-j_{sa}^{lk}-j_{ik}-3 \cdot s)!}$$

$$\frac{(\mathbf{l}_s-2)!}{(\mathbf{l}_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D-\mathbf{l}_i)!}{(D+j_i-\mathbf{n}-\mathbf{l}_i)! \cdot (\mathbf{n}-j_i)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > \mathbf{n} \wedge \mathbf{l}_s \leq D - \mathbf{n} - 1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_{sa}^{lk}+j_{sa}^{ik}-1 \leq j_{ik} \leq j_{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j_{sa} \leq j_i+j_{sa}^{lk}-j_{sa} \wedge j_{sa}+s-j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik}-j_{sa}^{lk}+1 > \mathbf{l}_s \wedge \mathbf{l}_{sa}+j_{sa}^{ik}-j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i+j_{sa}-s = \mathbf{l}_{sa} \wedge$$

$$D+s-\mathbf{n} < \mathbf{n} \leq D+\mathbf{l}_s+s-\mathbf{n}-1 \wedge$$

$$D > \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^s < j_{sa}^{ik}-1 \wedge$$

$$\mathbf{s}: \{j_{sa}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f_{zS_{j_s, j_{ik}, j^{sa}, j_i}} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+j_{sa}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 &\frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
 &\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 &\sum_{j_{ik}=l_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\sum_{j_{ik}=l_i + \mathbf{n} + j_{sa}^{lk} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa}=j_{ik} + j_{sa} - j_{sa}^{lk})}^{(j^{sa}=j_{ik} + j_{sa} - j_{sa}^{lk})} \sum_{j_i=j^{sa} + s - j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (j_i - j_s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{lk} + 1)!}{(j_s + l_{ik} - j_{sa}^{lk} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1} \sum_{(j_s = l_i + \mathbf{n} - D - s + 1)}^{(l_s)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{lk} - 1}^{j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})}^{( )} \sum_{j_i = j^{sa} + s - j_{sa}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = \mathbf{n} + \mathbb{k}_3 - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s = \mathbf{n} - j_i + 1}^{n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{k=j_s+j_{sa}^{ik}-1}^{(l_s)} \sum_{i_k=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik}}^{(l_s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s)}$$

$$\sum_{i_k=j_s+j_{sa}^{ik}-1}^{(l_s)} \sum_{i_k=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik}}^{(l_s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s)}$$

$$\sum_{i_k=j_s+j_{sa}^{ik}-1}^{(n_i-1)} \sum_{i_k=j_{sa}^{ik}+j_{sa}-j_{sa}^{ik}}^{(n_i-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n_i-1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_Z^S(j_s, j_{ik}, j_{sa}, j_i) &= \sum_{j_s=1}^{\mathbb{k}+1} \sum_{(j_s=2)}^{\mathbb{k}+1} \\ &\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(n_i-n_{is}-1)} \sum_{j_{sa}=j_i+j_{sa}^{ik}-1}^{(n_i-n_{is}-1)} \sum_{j_i=\mathbf{l}_{sa}+\mathbf{n}+s-D-j_{sa}}^{\mathbf{l}_s+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{n_i=\mathbf{n}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1+1)}^{(n_i-n_{is}-1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-n_{is}-1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ &\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \sum_{n_s=\mathbf{n}-j_i+1}^{(n_s-1)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$
$$\sum_{k=1}^{(l_s)} \Delta_{(j_s = 2k)}^{(l_s)}$$
$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{se}}^{\binom{()}{j_{sa}=j_{sa}^{ik}-j_{se}}} \sum_{\substack{j_{is}=j_{sa}^{ik}-j_{se} \\ j_{ik}=j_{sa}+j_{sa}^{ik}-j_{se}}}^{\binom{n}{l_s+s}} \frac{(n_i - j_s + 1)!}{(n_i - n_{is} - \mathbb{k}_1 - j_s + 1)!} \cdot \frac{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)!}{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$



$$\sum_{k=1}^{\sum} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+n+s-D-1}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{sa}-\mathbb{k}_1)}^{( )} \sum_{(n_{sa}=n_{sa}+j_{sa}^{sa}-j_i)}^{( )}$$

$$\frac{(n_i+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_s-j_{ik}-2 \cdot s-\mathbb{k}_2-\mathbb{k}_3)!}{(n_i-j_i-\mathbb{k}_1-j_{sa}-\mathbb{k}_3)!}$$

$$\frac{(n+2 \cdot j_i+j_{sa}^s+j_{sa}^{ik}-j_i-j_{ik}-3 \cdot s)!}{(l_s-2)! \cdot (j_s-2)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_{ik}+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j_{sa} \leq j_i+j_{sa} \wedge j^{sa}+s-j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik}-j_{sa}^{ik}+1 > l_s \wedge l_{sa}+j_{sa}^{ik}-j_{sa} = l_{ik} \wedge l_i+j_{sa}-s = l_{sa} \wedge$$

$$D+j_{sa}-n-l_{sa} \leq D-l_s+j_{sa}-n-1 \wedge$$

$$D > n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s+j_{sa}-1)} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{n_s=n-j_i+\mathbb{k}_3}^{(n_{ik}+j_{ik}-j^{sa})} \\
 &\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_i-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \\
 &\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{ik} = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{\mathbf{S}}_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=l_{sa}+\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (j_i - j_s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_s^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - j_s^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{j_{ik}=l_{sa}}^{l_s + j_{sa}^{ik} - 1} \sum_{j_{sa}^{ik}=D - j_{sa}}^{j_{sa}^{ik} - j_{ik} + j_{sa} - j_{sa}^{ik}} \sum_{j_i=j_{sa} + s - j_{sa}}^{(j_{sa}^{ik} - j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_{ik}=\mathbf{n} + \mathbb{k}}^{(n_i - \mathbf{n} - 1)} \sum_{n_{is}=\mathbf{n} + \mathbb{k} - j_s + 1}^{(n_i - \mathbf{n} - 1)} \sum_{n_{ik}=n_{is} + j_s - j_{ik} - \mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_s=n_{sa} + j^{sa} - j_i - \mathbb{k}_3}$$

$$\frac{(n_i - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < \mathbf{l}_{sa} \leq D + \mathbf{l}_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & f z^S S_{j_s, j_{ik}, j_{sa}^{ik}, j_i} \sum_{(j_s=2)}^{(j_s=j_{sa})} \sum_{(j_i=j_{sa}^{ik}-j_{sa})}^{(j_i=j_{sa}^{ik}-j_{sa})} \sum_{(j_{sa}=j_{ik}-j_{sa}^{ik})}^{(j_{sa}=j_{ik}-j_{sa}^{ik})} \sum_{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})}^{(j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa})} \sum_{(n_i=n+\mathbb{k}_1-1)}^{(n_i=n+\mathbb{k}_1-1)} \sum_{(n_{is}=n+\mathbb{k}_2-1)}^{(n_{is}=n+\mathbb{k}_2-1)} \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ & \frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(l_s)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{n + j_{sa}^{ik} - s} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa})}^{( )} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa})}^{( )} \\
& \sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \\
& \sum_{(n_{ik} + j_{sa} - \mathbb{k}_2)}^{(n_{ik} + j_{sa} - \mathbb{k}_2)} \sum_{(n_{sa} - j_i - \mathbb{k}_3)}^{(n_{sa} - j_i - \mathbb{k}_3)} \\
& \sum_{(n_{sa} - n_s - \mathbb{k}_3 - j_{sa}^{ik})}^{(n_{sa} - n_s - \mathbb{k}_3 - j_{sa}^{ik})} \sum_{n_s = n - j_i + 1}^{(n_s - 1)!} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^n \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j_{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-1)}^{( )} \sum_{n_s=n_{sa}+j_{sa}-j_i} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - 2 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}{(l_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} - 1 \wedge \\
& 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_i + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge \\
& l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D + j_{sa}^{ik} - \mathbf{n} - l_{ik} \leq D - l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge \\
& D \geq \mathbf{n} - n \wedge I = \mathbb{k} > 0 \wedge \\
& j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& s, \{j_{sa}^{i-1}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \geq 6 \wedge s = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$



$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j^{sa}=j_i+j_{sa}-s)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(l_s+s-1)} \sum_{j_i=l_{ik}+s+n-D-j_{ik}}^{(l_s+s-1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_s-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}=n+l_{k3}-j^{sa}-1)}^{(n_{sa}=n+l_{k3}-j^{sa}-1)} \sum_{(n_s=n-j_i+l_{k3})}^{(n_s=n-j_i+l_{k3})} \\
 &\frac{(n_i-n_{ik}-l_{k1}-1)!}{(j_s-2)! \cdot (n_{is}-n_{ik}-j_s+1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-l_{k1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k1})!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\frac{(n_{sa}-n_s-l_{k3}-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-l_{k3})!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j^{sa}=j_i+j_{sa}-s)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(l_s)} \sum_{j_i=l_s+s}^n
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{ik}+s+n-D-j_{sa}^{ik}}^{l_s+s-1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)!(n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < l_{ik} \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1 < j_{sa} \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s+j_{sa}-1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{j_{ik}=j^{sa}-j_{sa}^{ik}-j_{sa}}^{(l_{ik}-j_{sa}-j_{sa}^{ik}-j_{sa})} \sum_{j_s=j^{sa}+s-j_{sa}}^{(l_s+j_{sa}-j_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(j_{ik}-j_s-j_{sa}^{ik}+1)}$$

$$\sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{(n_i-1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_s-1)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(n_s-1)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s = \mathbf{l}_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} < \mathbf{l}_{ik} \leq D + \mathbf{l}_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_Z^S(j_s, j_{ik}, j_{sa}^{ik}, j_{sa}^{ik+1}) &= \sum_{s=1}^{\mathbb{K}+1} \sum_{(j_s=2)}^{\mathbb{K}+1} \\ &\sum_{j_{ik}=\mathbf{l}_{ik}+\mathbf{n}}^{\mathbf{l}_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+\mathbf{n}-j_{sa}^{ik})}^{(j_{sa}=j_{ik}+\mathbf{n}-j_{sa}^{ik})} \sum_{j_i=j_{sa}+s-j_{sa}}^{(j_{sa}=j_{ik}+\mathbf{n}-j_{sa}^{ik})} \\ &\sum_{n_i=\mathbf{n}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{K}_1+s+1)}^{(n_i-j_s-1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &\sum_{(n_{sa}=\mathbf{n}+\mathbb{K}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(\mathbf{l}_s - 2)!}{(\mathbf{l}_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \frac{\Delta_{(j_s=2)}^{(l_s)}}{(j_s - 2)!} \cdot \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa})}^{( )} \frac{(n_{is}-j_s+1)!}{(n_{is}-j_s+1)!} \cdot \frac{(n_{is}+j_s-j_{ik}-l_{k_1})!}{(n_{is}+j_s-j_{ik}-l_{k_1})!} \cdot \\
& \sum_{n_i=n+l_{k_1}}^n \sum_{(n_{is}-l_{k_1}-j_s+1)}^{(n_{is}-l_{k_1}-j_s+1)} \sum_{(n_{ik}+j_{sa}-l_{k_2})}^{(n_{ik}+j_{sa}-l_{k_2})} \sum_{(n_{sa}-j_i-l_{k_3})}^{(n_{sa}-j_i-l_{k_3})} \sum_{(n_{sa}-n_s-l_{k_3}-j_{sa}^{ik})}^{(n_{sa}-n_s-l_{k_3}-j_{sa}^{ik})} \sum_{n_s=n-j_i+1}^{(n_{sa}-n_s-l_{k_3}-j_{sa}^{ik})} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k_3} - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - l_{k_3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \sum_{j_i=j^{sa}+s-}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_i-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \sum_{(n_{sa}=n_{sa}+j^{sa}-j_i-}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > \mathbf{n} \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_i \leq j_i + j_{sa} \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - \mathbf{n} - 1 \leq D + l_s + j_{sa}^{ik} - \mathbf{n} - 1 \wedge$$

$$D < \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2}-1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2}-1)} \sum_{(n_{sa}=n+l_{k_3}-j_{ik}-1)}^{(n_{sa}=n+l_{k_3}-j_{ik}-1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}-1} \\
 &\frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
 &\frac{(n_{ik}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-l_{k_1})!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\frac{(n_{sa}-n_s-l_{k_3}-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-l_{k_3})!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{l})!}{(D + j_i - \mathbf{n} - \mathbf{l}_i) \cdot (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3\}$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$fz^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j^{sa}=j_{sa}+1)}^{l_s+s-1} \sum_{j_i=s+1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 1)!}{(l_s - j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} + l_i - l_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D + l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \sum_{j_i=l_s+s}^{l_i}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$



$$\frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_i \leq D + s - \mathbf{n} \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_s}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{sa}=j_{sa}^{ik}-1}^{j_{sa}+j_{sa}^{ik}-j_{ik}} \sum_{j_i=j^{sa}+s-j_{sa}}^{j_i-j_{sa}^{ik}+1} \sum_{l_i=j_{sa}^{ik}-j_{sa}}^{l_i-j_{sa}^{ik}+1} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \sum_{n_s=n-j_i+1}^{n_s-1} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{j_{ik}=j^{sa}+l_i-l_{sa}} \sum_{j_{sa}=l_s+j_{ik}}^{(l_s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s)} \sum_{k=2}^{(j_s=2)} \sum_{j_s=2}^{(l_s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{n+l_k-j_s+1}^{(n+l_k+1)} \sum_{n_{ik}=n+l_{k_2}+l_{k_3}-j_{ik}+1}^{(n+l_k+1)} \sum_{n_{sa}=n+l_{k_3}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{n_s=n-j_i+1}^{(n_{sa}+j_{sa}-j_i-l_{k_3})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - l_{k_3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k_3})!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$



$$\begin{aligned}
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{\binom{(\quad)}{(j_s = j_{ik} - j_{sa}^{ik} + 1)}} \sum_{j_{ik} = j^{sa} + j_{sa}^{lk} - j_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_s + j_{sa} - 1)} j_{ik}^{sa + s - j_{sa}} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{(n_i - j_s + 1)} \sum_{(n_{is} = n_{ik} + j_s - j_{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \sum_{(j_{sa} = j_i - \mathbb{k}_3)}^{(n_i - j_s + 1)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge \mathbf{l}_i \leq 2 + s + 2 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_s + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_s + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge \mathbb{I} = \mathbb{k} > 0 \wedge$$

$$j_s < j_{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
 f_{zS} S_{j_s, j_{ik}, j^{sa}, j_i} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-1}^{l_i} \\
 &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
 &\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-j_i-\mathbb{k}_3)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_i-1)}^{(n_{sa}=n+\mathbb{k}_3-j_i-1)} \sum_{n_s=n-j_i+1}^{(n_s=n-j_i+1)} \\
 &\frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (l_i-j_s+1)!} \cdot \\
 &\frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=\mathbf{l}_s+j_{sa}^{ik}}^{\mathbf{l}_{ik}} \sum_{(j_{sa}=\mathbf{j}_{ik}+\mathbf{j}_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j_{sa}+s-j_{sa}}^{\mathbf{l}_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{sa}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)!(n_{is}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!(\mathbf{n}-j_i)!} \cdot \\
& \frac{(\mathbf{l}_s-2)!}{(\mathbf{l}_s-j_s)!(j_s-2)!} \cdot \\
& \frac{(\mathbf{l}_{ik}-\mathbf{l}_s-j_{sa}^{ik}+1)!}{(j_s+\mathbf{l}_{ik}-j_{ik}-\mathbf{l}_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(\mathbf{l}_i+j_{sa}-\mathbf{l}_{sa}-s)!}{(j_{sa}+\mathbf{l}_i-j_i-\mathbf{l}_{sa})!(j_i+j_{sa}-j_{sa}-s)!} \cdot \\
& \frac{(D-\mathbf{l}_i)!}{(D+j_i-\mathbf{n}-\mathbf{l}_i)!(\mathbf{n}-j_i)!} - \\
& \sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{\mathbf{l}_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=\mathbf{j}_{ik}+\mathbf{j}_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j_{sa}+s-j_{sa}}^{\quad}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D - j_i - \mathbf{n} - l_i)(\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_{sa} \leq j_i \leq j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} = l_{ik} \wedge j_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$\mathbf{s}: (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i)$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_{is} + j_i - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_s - j_{ik} - l_{sa} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{sa})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - \mathbf{n})!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{ik} = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(j_s+s-1)} \sum_{j_i=l_i+n-D}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n_s - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i - j_{sa} - l_{sa} - s)!}{(j_s + l_i - j_i - l_s - s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(l_{sa})} \sum_{j_i=l_s+s}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j^{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_{sa} - l_{sa} - s)! \cdot (j_i + j^{sa} - j_{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_i+n-D}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$



$$D \geq \mathbf{n} < n \wedge \mathbf{l}_s > 1 \wedge \mathbf{l}_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 > \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D + s - \mathbf{n} < \mathbf{l}_i \leq D + \mathbf{l}_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_{\mathbf{Z}}^{(\mathbf{s}, j_{ik}, j_{sa}^{ik}, j_{sa}^i)} &= \sum_{k=1}^{(j_{sa}^{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_{sa}^{ik} + 1)} \\ &\sum_{(j_{sa}^{ik} + j_{sa}^{ik} - j_{sa})}^{(l_i + j_{sa} - D - s - 1)} \sum_{(j_{sa} = l_{sa} + n - D)}^{n} \sum_{j_i = l_i + n - D}^n \\ &\sum_{i=n+\mathbb{K}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{K} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{K}_1} \sum_{n_{ik} = n + \mathbb{K}_2 + \mathbb{K}_3 - j_{ik} + 1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{K}_2} \\ &\sum_{(n_{sa} = n + \mathbb{K}_3 - j_{sa} + 1)}^{n_{sa} + j_{sa} - j_i - \mathbb{K}_3} \sum_{n_s = n - j_i + 1}^{(n_i - n_{is} - 1)!} \\ &\frac{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!} \cdot \\ &\frac{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!} \cdot \\
& \frac{(l_i - 1)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{j_{ik}=0}^{(l_s+j_s-1)} \sum_{j_{sa}=l_{ik}+j_{sa}-D-s}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_i=0}^n \sum_{j_{is}=0}^{(n_i-j_s)} \sum_{j_{ik}=\mathbf{n}+\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{j_{sa}=\mathbf{n}+\mathbb{k}_2}^{n_{ik}+\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \sum_{n_s=\mathbf{n}-j_i+1}^{(n_i-n_{is}-1)!} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\sum_{k=2}^{(l_s)} (j_s - k)! \cdot$$

$$\sum_{j_{ik}=j^{sa}+l_{sa}-j_{sa}^{ik}}^{(l_{sa})} \sum_{(j^{sa}=l_s+j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_{sa})} \cdot$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}-j_s+j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{ik}+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}+1)} \cdot$$

$$\sum_{(n_{sa}=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)} n_{sa} + j_{sa} - j_i - \mathbb{k}_3$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1}^{\binom{D}{n}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{D}{n}} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{lk} - j_{sa}}^{\binom{D}{n}} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{\binom{D}{n}} \sum_{j_{ik} = j^{sa} + s - j_{sa}}^{\binom{D}{n}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{\binom{D}{n}} \\
& \sum_{(n_{is} = n_{ik} + j_s - j_{sa} - \mathbb{k}_2)}^{\binom{D}{n}} \sum_{(n_{ik} = n_{is} + j_s - \mathbb{k}_3)}^{\binom{D}{n}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq 1 \wedge l_s \leq D - n \wedge$$

$$1 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1 \wedge$$

$$n - l_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+n-D}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_{sa}^{ik}-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-\mathbb{k}_3-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_i+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^n
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=\mathbf{n}+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{ik} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} - l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, \mathbb{k}_3, j_{sa}^i\}$$

$$s \geq 6 \wedge \mathbf{s} = s - \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$$

$$f_Z^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}^{\mathbf{n}}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=l_i+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$



$$\begin{aligned}
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
& \frac{(n_{sa} - n_{is} - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \\
& \frac{(n_s - 1)!}{(D + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \\
& \frac{(l_s - 2)!}{(j_s - 2)! \cdot (j_s - 1)!} \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} - l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\mathbf{n}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_s + l_i - j_i - l_s - 1)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} S: \dots, j_{sa}^{ik}, j_{sa}^s, j_i &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\ &\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=s+1}^{l_s+s-1} \\ &\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &\sum_{(n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!}.$$

$$\frac{(D - l_i)!}{(n + j_i - n - l_i - 1)! \cdot (n - j_i)!}.$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{sa}=1}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^{l_i}$$

$$\sum_{n+\mathbb{k}}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1) \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{l_s-1} (j_s - j_{ik} - j_{sa}^{ik} + 1)!$$

$$\sum_{j_{ik}+j_{sa}^{ik}-j_s \leq j_{sa}=j_i+j_{sa}-s}^{l_s+s-1} \sum_{j_i=s+1}^{l_s+s-1} (j_i - s)!$$

$$\sum_{j_{ik}+j_{sa}^{ik}-j_s \leq j_{sa}=j_i+j_{sa}-s}^n \sum_{n_{is}=n+j_s+1}^{j_s+1} (n_{is} - n - j_s - 1)!$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{j_s+1} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{j_s+1} (n_s - n_{sa} - j^{sa} - j_i - \mathbb{k}_3)!$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}.$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$







$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa}^{ik}-j_{sa})}^{(l_{sa})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}_1-j_s)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{ik}} \\
& \sum_{(n_{ik}+j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{sa}-\mathbb{k}_2)} \sum_{(n_s=n+\mathbb{k}_3-j_s)}^{(n_{ik}+j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{j_i-\mathbb{k}_3} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j_{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{ik}}^{(l_s+j_{sa}-1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{(\cdot)} \sum_{(n_{sa}=n_{sa}+j_{sa}-j_i)}^{(\cdot)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{sa} - j_{ik} - 2 \cdot s - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_{sa} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& D \geq n < n \wedge l_s > n \wedge l_i \leq D + s - n \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{lk} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} - 1 \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa}^{lk} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
& D \geq n < n - \mathbb{k} > n - \mathbb{k} \wedge \\
& j_{sa}^{lk} + j_{sa}^{ik} - 1 \wedge j_{sa}^{lk} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
& \mathbf{s}: \{j_{sa}^s, \dots, j_{sa}^{lk}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge \\
& s \leq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge \\
& \mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
\end{aligned}$$

$$fz^S_{j_s, j_{ik}, j_{sa}^{sa}, j_i} = \sum_{k=1}^{\infty} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
& \frac{(n_{sa}-j_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_i+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j_{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3 \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - l_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} - j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} - j_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 0 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_i - \mathbb{k}_2 - 1)!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_s - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\},$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j^{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik}) \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_i - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=0}^{(j_i - \mathbf{n} - 1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_i - \mathbf{n} - 1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j_i - \mathbf{n} - 1)} \sum_{j_{sa}=j_i+j_{sa}-s}^{l_s+s-1} \sum_{j_i=l_i+\mathbf{n}-D}^{l_s+s-1} \\
& \sum_{n_{ik}=n+\mathbb{k}}^{(n_i - \mathbf{n} - 1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - \mathbf{n} - 1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i - \mathbf{n} - 1)} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i - \mathbf{n} - 1)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(n_i - \mathbf{n} - 1)} \\
& \frac{(n_i - 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, k_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + k \wedge$$

$$k_z: z = 3 \wedge k = k_1 + k_2 + k_3 \Rightarrow$$

$$fz^S j_s, j_{ik}, j_{sa}^{ik} = \sum_{j_s=1}^{j_s^{ik}+1} \sum_{(j_s=2)}^{j_s^{ik}+1} \sum_{j_{ik}=l_{ik}+n-D}^{j_{ik}^{ik}-j_{sa}} \sum_{j_{sa}=l_i+n+j_{ik}-D-s}^{j_{sa}^{ik}-j_{sa}} \sum_{n_i=n}^{n_i^{ik}-1} \sum_{(n_{is}=n+k_1+1)}^{(n_i^{ik}-1)} \sum_{n_{ik}=n+k_2+k_3-j_{ik}+1}^{l_s+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j_{sa}-k_2)}^{n_{sa}+j_{sa}-j_i-k_3} \sum_{(n_{sa}=n+k_3-j_{sa}+1)}^{n_{sa}+j_{sa}-j_i-k_3} \sum_{n_s=n-j_i+1}^{n_s} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - k_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - k_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \sum_{k=0}^{(l_s)} \sum_{j_s=2}^{(l_s)} \\
& \sum_{j_{ik}=l_{ik}}^{l_{ik}} \sum_{j_{sa}=l_{sa}-s}^{j_{sa}-s} \sum_{j_i=j^{sa}+s-j_{sa}}^{j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}-j_s+\mathbb{k}_1)}^{(n_{ik}=\mathbf{n}+\mathbb{k}-j_s+\mathbb{k}_1)} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_{sa}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)} \\
& \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{sa}-\mathbb{k}_2)}^{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{sa}-\mathbb{k}_2)} \sum_{n_{sa}=j^{sa}-j_i-\mathbb{k}_3}^{n_{sa}=j^{sa}-j_i-\mathbb{k}_3} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_s=\mathbf{n}-j_i+1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s, \dots, j^{sa}=l_i+n+j_{sa}-D-s)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_1}=n+\mathbb{k}_1, \dots, n_{i_s}=n+\mathbb{k}_s)}^{(n_i-j_s+1)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2, \dots, n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2, \dots, n_{sa}=n_{ik}+j_{sa}^{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - j_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$



$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_i+\mathbf{n}+j_{sa}^{ik}-D-s-1} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=l_i+s-j_{sa}}^{l_i+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}-j^{sa}+1)}^{(j_{ik}-j_{sa}-\mathbb{k}_2+j_{sa}+j_i-\mathbb{k}_3)} \sum_{j_i+1}^{(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot$$

$$\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(n_{sa}-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_i-\mathbf{n}-l_i)! \cdot (\mathbf{n}-j_i)!} +$$



$$\begin{aligned}
& \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_i+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
& \frac{(n_{ik}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_2-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_{ik}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!(n_{is}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)!(n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)!(n-j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{( )}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - 1)}{(D - j_i - \mathbf{n} - l_i)(\mathbf{n} - j_i)!}
\end{aligned}$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{ik} + s - j_s \leq j_i \leq j_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_s - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} + 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, \mathbb{k}_3, j_{sa}^s\} \wedge$$

$$s \geq 6 \wedge s \leq s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: 7 \leq \mathbb{k}_z \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1}^{(l_i + \mathbf{n} - D - s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_{ik}} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_{sa} + j^{sa} - n_s - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(j_s + j_i - n + 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\end{aligned}$$



$$\begin{aligned}
& \sum_{(n_{sa}=n+l_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_{is} - l_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - l_1 - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_s - j_{ik} - l_1 - j_{sa}^{ik} + 1)!}{(j_s + j_{ik} - j_{ik} - l_1 - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} + j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{is}=n+l_1-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1}^{( )} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_2)}^{( )} \sum_{n_s=n_{sa}+j^{sa}-j_i-l_3}^{( )}
\end{aligned}$$



$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}.$$

$$\frac{(D - l_s)!}{(D + j_i - \mathbf{n} - l_s)! (n - j_i)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{ik} = j_{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z \leq 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{\mathbf{S}}_{j_s, j_{ik}, j_{sa}^{ik}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_{sa}+\mathbf{n}+s-D-j_{sa}}^{l_s+s-1}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$



$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - n - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_s - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=l_s+s}^n$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i - n_s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa}^{ik}) \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = j^{sa} - j_{sa}^{ik} - j_{sa}}^{(\quad)} \sum_{(j^{sa} = j_i + j_{sa} - s) \atop j_i = l_{sa} + \mathbf{n} + s - D - j_{sa}}^{l_s + s - 1} \\
& \sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \\
& \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \sum_{n_s = n_{sa} + j^{sa} - j_i - \mathbb{k}_3} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{sa}^{ik}}^{sa, j_i} &= \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \\ &\sum_{i_k=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \end{aligned}$$



$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s + 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(n + j_i - \mathbf{n} - l_i - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}$$

$$\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$



$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1} (j_s=j_{ik}-j_{sa}^{ik}+1)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} (j^{sa}+j_{sa}^{ik}-j_{sa}+n-D) \sum_{j_i=j^{sa}+s-j_{sa}}^{j_i=j^{sa}+s-j_{sa}} (j_i=j^{sa}+s-j_{sa})$$

$$\sum_{j_{ik}=n+\mathbb{k}_1}^n (n_{is}=n+j_{sa}^{ik}-j_{sa}+1) \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{j_s+1} (n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1)$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{j_s+1} (n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{j_s+1} (n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{sa} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$



$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1 \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{\mathbb{k}} \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j_{sa}^{ik}+1)} \sum_{j_{ik}=l_{sa}+n}^{l_{sa}+n+j_{sa}^{ik}-D-j_s-1} \sum_{j_s=l_{sa}+n}^{(n+j_{sa}-1)} \sum_{j_i=s-j_{sa}}^{(n+j_{sa}-1)} \\ &\sum_{n=\mathbf{n}+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}_1+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}^{(n_{ik}+j_{sa}-j_{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\ &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(n + j_{sa} - s)} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{sa}+j_{sa}^{ik}-j_{sa})}^{(n+j_{sa}-s)} \sum_{(n_{is}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}=n_{sa}+j_{ik}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-\mathbb{k}_2)} \sum_{(n_{sa}=n+j_{sa}-\mathbb{k}_3)}^{(n_{sa}+j_{sa}-\mathbb{k}_3)} \sum_{n_s=n-j_i+1}^{(n_{is}-n_{ik}-\mathbb{k}_1-1)!} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=\mathbf{l}_s+j_{sa}^{ik}}^{\mathbf{l}_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_{ik}^{sa}=\mathbf{l}_s+j_{sa}-j_{sa}^{ik}}^{(n_{is}+j_s-\mathbb{k}_1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+j_{sa}^{ik}-j_{sa}^{ik}}^{(n_{is}+j_s-\mathbb{k}_1)} \\
& \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \sum_{(n_{sa}+j_{sa}-j_i-1)}^{(n_{sa}+j_{sa}-j_i-1)} \\
& \frac{(n_{is}-\mathbf{n}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{is}-\mathbf{n}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_{ik}+j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_i-j_{ik}-\mathbb{k}_1}^{( )} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_s - 2)!}{(D - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_i + j_{sa} \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa} - 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n - l_{sa} \leq l_i + l_s + j_{sa} - n - 1 \wedge$$

$$D - n > 0 \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz_{j_s, j_{ik}, j^{sa}, j_i}^S &= \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(n+j_{sa}-s)} \\
&\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{ik}}^{(n+j_{sa}-s)} \\
&\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
&\sum_{(n_{sa}=n+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)} \sum_{n_s=n-j_i}^{n_{sa}+j_{ik}-j_i-\mathbb{k}_3} \\
&\frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{ik}-j_s+1)!} \cdot \\
&\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-\mathbb{k}_1)!} \cdot \\
&\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
&\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
&\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
&\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
&\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
&\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
&\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
&\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)}
\end{aligned}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_i-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-1} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{ik}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}
\end{aligned}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - 1)!}{(D + j_i - n - l_i)(n - j_i)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - s - 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$\begin{aligned}
fz_{j_s, j_{ik}, j^{sa}, j_i} = & \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_i+j_{sa}-s)} \sum_{j_i=s}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_i+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_s - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{ik} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \sum_{j_i=l_s+s}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \sum_{(n_{sa}=n+\mathbb{k}_3-j_{sa}+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \sum_{n_s=n-j_i}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\begin{aligned}
& \sum_{k=1}^{\binom{D}{2}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{2}} \\
& \sum_{j_{ik}=j_{sa}^{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{D}{2}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{\binom{D}{2}} \sum_{j_i=s}^{l_s+s-1} \\
& \sum_{n_i=n+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{K}_1}^{\binom{D}{2}} \\
& \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{K}_2)}^{\binom{D}{2}} \sum_{(n_{sa}=n_{sa}+j_{sa}^{sa}-j_i)}^{\binom{D}{2}} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot \\
& \frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - 2)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\begin{aligned}
& ((D \geq n < n \wedge l_s \leq 1 \wedge l_i \leq D + s - n \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_{ik} - j_{sa} - 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\
& (D \geq n < n \wedge 1 > 1 \wedge l_s \leq D - n + 1 \wedge \\
& 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\
& j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\
& l_i - s + 1 > l_s \wedge \\
& l_i \leq D + s - n)) \wedge
\end{aligned}$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$







$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \sum_{j_{ik}=j_{sa}^{ik}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{sa}+j_{sa}-n_{ik}-j_{ik}-\mathbb{k}_3-j_i+1)}^{(n_{ik}+j_{ik}-j_{sa}-1)} \sum_{(n_{sa}+j_{sa}-j_i-1)}^{(n_{sa}+j_{sa}-j_i-1)} \\
& \frac{(n_{ik}+j_{ik}-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-j_i-1)!}{(n_{sa}+j_{sa}-j_i-1)! \cdot (n_{sa}+j_{sa}-j_i-1)!} \cdot \\
& \frac{(n_{is}-n-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{is}-n-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_{ik}+j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
& \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j_{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \sum_{j_i=j_{sa}+s-j_{sa}}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{lk}-\mathbb{k}_1)}^{(\quad)} \sum_{(n_{sa}=n_{sa}+j_{sa}^{lk}-j_i)}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_i - j_{ik} - 3 \cdot s)!}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{lk} - j_i - j_{ik} - 3 \cdot s)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l_s \leq 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{lk} + 1 \wedge j_s + j_{sa}^{lk} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{lk} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{lk} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{lk} + 1 > l_s \wedge l_{sa} + j_{sa}^{lk} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s \leq 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{lk} + 1 \wedge j_s + j_{sa}^{lk} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{lk} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{lk} \leq j_{sa} \leq j_i + j_{sa} - s \wedge j_{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^l - 1 \wedge j_{sa}^{lk} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{lk} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_{zS} S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{ik}-j_{sa})}^{(l_{sa})} \sum_{j_i=j_{sa}^{ik}-j_{sa}}^{l_i} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n+j_s-j_{ik}-1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{ik}=n+j_{sa}-j_{ik}-1)}^{(n_{ik}=n+j_{sa}-j_{ik}-1)} \sum_{(n_{ik}=n+j_{sa}-j_{ik}-1)}^{(n_{ik}=n+j_{sa}-j_{ik}-1)} \sum_{n_s=n-j_i+1}^{(n_{ik}=n+j_{sa}-j_{ik}-1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{is} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j_{sa} - s)!}.$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \sum_{j_{is}=j_{sa}+s-j_{sa}}^{l_i} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_{sa})}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+j_{sa}-\mathbb{k}_1}^{n_{is}+j_s-\mathbb{k}_1} \\
& \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)} \sum_{(n_{sa}+j_{sa}-j_i-\mathbb{k}_1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_1)} \\
& \frac{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)!}{(n_{sa}+j_{sa}-j_i-\mathbb{k}_1)!} \cdot \frac{(n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
& \frac{(n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \\
& \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_{ik}-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
& \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -
\end{aligned}$$



$$\sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_i-j_{ik}-\mathbb{k}_1}^{(\quad)}$$

$$\sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \sum_{(n_{sa}=n_{sa}+j^{sa}-j_i-}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - 3 \cdot s)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s \leq D - n + 1 \wedge l_i \leq D + s - n \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee \\ & (D \geq n < n \wedge l_s \leq D - n + 1 \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge \\ & l_i - s + 1 > l_s \wedge \\ & l_i \leq D + s - n)) \wedge \\ & D \geq n < n \wedge l = \mathbb{k} > 0 \wedge \\ & j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \end{aligned}$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(l_s)} \sum_{(j_s=1}^{(l_s)} \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}^{lk})}^{(l_{sa})} \sum_{j_i=j_s+j_{sa}-j_{sa}}^{l_i} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_s=n+\mathbb{k}_3-j_{sa}+1)}^{(n_s=n+\mathbb{k}_3-j_{sa}+1)} \sum_{n_s=n-j_i+1}^{(n_i-n_{is}-1)!} \frac{(n_i-n_{is}-1)!}{(j_s-j_i-1)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!}$$



$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_{sa}^{sa}+s-j_{sa}}^{( )} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}-l_k}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - j_{sa} - l_k - l_k - l_k - l_k)!}{(n_i - n - l_k - l_k - l_k - l_k)!} \cdot \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_{ik} - j_{sa} - 3 \cdot s)!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_i > 1 \wedge l_s \leq D - n + 1) \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - s + 1 > l_s + l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1) \vee$$

$$D + s - n - l_i > n - n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$



$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1)) \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}^{sa}, j_i}} = \sum_{k=1}^{(j_{sa}^{ik}+1)} \sum_{j_s=0}^{(j_i+j_{sa}-1)} \sum_{l_s=0}^{l_s+s-1} \sum_{j_{ik}=l_{ik}+n}^{j_{sa}+i\mathbb{k}-j_{sa}} \sum_{j_{sa}=l_{sa}+1}^{j_{sa}+i\mathbb{k}-j_{sa}} \sum_{n_{is}=n+\mathbb{k}_1-1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{ik}+j_{sa}-\mathbb{k}_2} \sum_{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}^{n_{sa}+j_{sa}-j_i-\mathbb{k}_3} \sum_{n_s=n-j_i+1}^{(n_i-n_{is}-1)!} \frac{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)! \cdot (\mathbf{n}-j_i)!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}.$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{k=2}^{(l_s)} (j_s = 2)$$

$$\sum_{j_i=1}^{l_{ik}} (j_i = 1 + n - D) \sum_{j_i=1}^{(l_{sa})} (j^{sa} = 1 + n - D) \sum_{j_i=l_s+s}^{(l_s)}$$

$$\sum_{n_i=n+l_k}^n (n_i = n + l_k + 1) \sum_{n_i=n+l_k-j_s+l_k}^{(n_i = n + l_k + 1)} \sum_{n_{ik}=n+l_k+l_k-j_{ik}+1}^{(n_i = n + l_k + 1)}$$

$$\sum_{(n_{ik}=n+l_k-j^{sa}-l_k)}^{(n_{ik}=n+l_k-j^{sa}-l_k)} \sum_{(n_{sa}=n+l_k-j^{sa}+1)}^{(n_{sa}=n+l_k-j^{sa}+1)} \sum_{n_s=n-j_i+1}^{(n_{sa}=n+l_k-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - l_k - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_k)!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - n_s - l_k - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_k)!}.$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$







$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$f_Z^{S_{j_s, j_{ik}, j_{sa}^{sa}, j_{sa}^{ik}}} = \sum_{j_s=1}^{(j_s-1)} \sum_{(j_s=2)}^{(j_s-1)} \sum_{j_{ik}=l_{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-n+j_{sa}-1} \sum_{(j_{sa}=n-D)}^{n} \sum_{j_i=l_i+n-D}^{n} \sum_{n_i=n}^{(n_i-1)} \sum_{(n_{is}=n+\mathbb{K}_1+1)}^{(n_i-1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{(n_{is}-1)} \sum_{(n_{sa}=n+\mathbb{K}_3-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{(n_{sa}+j_{sa}-j_i-\mathbb{K}_3)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik}=l_{ik}+n-j^{sa}-j_{sa}}^{l_s+j_{sa}^{ik}-j_{sa}} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s+j_{sa}^{ik}-j_{sa})} \sum_{n_i=n-\mathbb{k}_1}^{(n-j_i+1)} \sum_{n_{is}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n-j_i+1)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{(n-j_i+1)} \sum_{n_s=n-j_i+1}^{(n-j_i+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n-j_i+1)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{(n-j_i+1)} \sum_{n_s=n-j_i+1}^{(n-j_i+1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \prod_{k=1}^{(l_s)} \frac{1}{(j_s - k)!} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{(l_{sa})} \sum_{j_i=j_{ik}+s-j_{sa}}^{(l_{sa})} \sum_{j_s=j_{ik}+s-j_{sa}}^n \frac{1}{(j_s - k)!} \cdot \\
& \sum_{n_{ik}=n+l_k}^n \frac{(n_{is}+1)!}{(n_{is}=n+l_k+1)!} \sum_{n_{is}=n+l_k+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \frac{1}{(n_{ik}=n+l_k+l_{k2}+l_{k3}-j_{ik}+1)!} \cdot \\
& \sum_{(n_{sa}=n+l_k-j^{sa}-l_{k2})}^{(n_{sa}=n+l_k-j^{sa}-l_{k2})} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \frac{1}{(n_{sa}=n+l_{k3}-j^{sa}+1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{\sum_{k=1}^{(j_s=j_i+j_{sa}^{ik}+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}^{(l_s+\mathbf{n}-1)} \sum_{j_i=j^{sa}+s-j_{sa}}^{(l_s+\mathbf{n}-1)} \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^{(j_s=j_i+j_{sa}^{ik}+1)} \sum_{n_{ik}=n_i+j_s-j_{ik}-\mathbb{k}_1}^{(j_s=j_i+j_{sa}^{ik}+1)} \sum_{n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(j_s=j_i+j_{sa}^{ik}+1)} (n_i + 2 \cdot j_i + j_{sa}^{s} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$((D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_i + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - \mathbf{n} < l_i \leq D + l_s + s - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{K} \wedge$$

$$\mathbb{K}_Z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\begin{aligned} f_Z S_{j_s, j_{ik}^{sa}, j_i} &= \sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{j_{ik} - j_{sa}^{ik} + 1} \\ &\sum_{j_{ik}=l_i+n-D}^{l_i+n+j_{sa}^{ik}-D-1} \sum_{j_{sa}=l_{sa}+n-D}^{(l_{sa})} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n_i=j_i+\mathbb{K}}^n \sum_{(n_{is}=n+\mathbb{K}-j_s+1)}^{(j_s+1)} \sum_{n_{ik}=n+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{K}_1} \\ &\sum_{(n_{sa}=n+\mathbb{K}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{K}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{K}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!} \cdot \\
& \frac{(D - j_i - 1)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{s=2}^{(j_{ik} - j_{sa}^{ik} + 1)} \frac{(l_s - 1)!}{(l_s + j_{sa}^{ik} - 1)!} \sum_{j_{ik}=l_{ik}+j_{sa}^{ik}-D-s}^{(l_s - 1)!} \sum_{j_i=j^{sa}+s-j_{sa}}^{\mathbf{n}} \\
& \sum_{n_{is}=\mathbf{n}+\mathbb{k}_1}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i - j_i - 1)!} \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\mathbf{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - l_{sa} - s)!} \cdot \\
& \frac{(D - j_i - n + l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}} \sum_{j_i=j^{sa}+s-j_{sa}}^n \sum_{j_{is}=n+l_k}^{n_i-j_s} \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}-n+l_k-1} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \\
& \sum_{n_{sa}=n+l_{k3}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k2}} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-l_{k3}} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - l_{k3} - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - l_{k3})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}.$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} (j_s=j_{ik}-j_{sa}^{ik}+1)$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-1}^{l_s+j_{sa}^{ik}-1} (j_{sa}=j_{ik}-j_{sa}^{ik}) j_i=j^{sa}+s-j_{sa}$$

$$\sum_{n_{is}=n+l_s-j_s+1}^n (n_{is}=n+l_s-j_s+1) \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_{is}+j_s+1)} n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n_{is}+j_s+1)} n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!}.$$

$$(l_i < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$



$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)} \\ &\sum_{j_{ik}=l_{ik}+n-D}^{(l_{sa})} \sum_{(j_{sa}=l_{sa}+n-D)}^{(l_{sa})} \sum_{j_i=l_i+n-D}^n \\ &\sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\ &\sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa})!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j - l_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i - (n - j_i))!} \cdot \\
& \sum_{k=1}^{\infty} \sum_{i=l_i+n-D-s+1}^{\infty} \\
& \sum_{l_{ik}=j_s+j_{sa}}^{l_{ik}} \sum_{l_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_{sa}} \sum_{j_i=j^{sa}+s-j_{sa}}^n \\
& \sum_{n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \\
& \sum_{(n_{sa}=n+\mathbb{k}_3-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$



$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$



$$\mathbf{l}_{ik} - j_{sa}^{ik} + 1 = \mathbf{l}_s \wedge \mathbf{l}_{sa} + j_{sa}^{ik} - j_{sa} = \mathbf{l}_{ik} \wedge \mathbf{l}_i + j_{sa} - s > \mathbf{l}_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_{sa}, j_{ik}, j_{sa}^{ik}, j_{sa}^i} = \sum_{k=1}^{(\quad)} \sum_{j_s=1}^{(\quad)} \sum_{j_i=1}^{(\quad)} \sum_{j_{ik}=1}^{(\quad)} \sum_{j_{sa}=1}^{(\quad)} \sum_{j_i=n_{ik}+\mathbb{k}_1+1}^n \sum_{j_{sa}=n_{ik}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j_{sa}-j_i-\mathbb{k}_3)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(\mathbf{l}_i + j_{sa} - \mathbf{l}_{sa} - s)!}{(\mathbf{l}_i + j_{sa} - j_i - \mathbf{l}_{sa})! \cdot (j_i - s)!} \cdot \frac{(D - \mathbf{l}_i)!}{(D + j_i - \mathbf{n} - \mathbf{l}_i)! \cdot (\mathbf{n} - j_i)!} - \sum_{k=1}^{(\quad)} \sum_{j_s=1}^{(\quad)}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\cdot)} \\
 & \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\cdot)} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \\
 & \frac{(D + n - n_i - l_i)! \cdot (n - s)!}{(D + n - n_i - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge \\
 & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_i \wedge \\
 & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge \\
 & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s > l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge \\
 & D \geq n < n \wedge l = l_s \geq 0 \wedge \\
 & j_s < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
 & s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, \mathbb{k}_3, n_i\} \wedge \\
 & s \geq 6 \wedge s = s + \mathbb{k} \wedge \\
 & \mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
 \end{aligned}$$

$$\begin{aligned}
 & f_z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\cdot)} \sum_{j_i=s}^{l_i}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - l_i - j_i)!}{(n_s - j_i - \mathbf{n} - l_i - j_i)!} \cdot \\
& \frac{(l_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D - j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1)}^{(\quad)} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{K}_3)}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)} \sum_{j_i=1}^{l_{sa}+s-j_{sa}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\ \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j_{sa} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{( )} \Delta_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}} \sum_{j_l=j_s} \sum_{j_i=s}$$

$$\sum_{k=1}^n \sum_{l=1}^{( )} \mathbb{K}_k (n_{ik} - j_{ik} - \mathbb{K}_1 + 1)$$

$$\sum_{n_{sa}=n_{ik}+j_{sa}-j_{sa}-\mathbb{K}_2} \sum_{n_{sa}+j_{sa}-j_i-\mathbb{K}_3}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - j_i - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (n - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq j_i + s - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^s - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{K} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$



$$fz_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(l_i+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=n+\mathbb{k}_3-j_{sa}+1}^{n_{ik}+j_{ik}-j^{sa}} \sum_{(n_s=n-j_i+\mathbb{k}_3)}^{(l_{sa}+j_{sa}-l_{ik}-j_{sa})}$$

$$\frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot$$

$$\frac{(n_{ik}-j_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa})!} \cdot$$

$$\frac{(n_{sa}-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}-j_{sa})!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -$$

$$\sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \sum_{j_i=s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n-j_{ik}-\mathbb{k}_1+1)}^{( )}$$



$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{(D - \mathbf{n} - l_i)!}{(D + s - \mathbf{n} - l_i)!} \cdot (n - s)!$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_{ik} \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}, j_i}^S = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - j^{sa} - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - a)!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i - j^{sa} - 1)!} \cdot$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_s=1}^{(n)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_s=1}^{(n)} \sum_{j_i=s}^{(n)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(n)}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$n \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$



$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{s=1}^{\binom{D}{s}} \sum_{(j_s=1)}^{\binom{D}{s}} \sum_{l_{sa}=j_{sa}}^{(l_{sa})} \sum_{l_{ik}=j_{ik}}^{l_i} \sum_{n_{sa}=n_{sa}-j^{sa}+1}^n \sum_{n_{ik}=n_{ik}-j_{ik}+\mathbb{k}_1+1}^{n_{ik}+\mathbb{k}} \sum_{n_s=n-j_i+1}^{n_{sa}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}-j_{sa})!} \cdot \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j^{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -$$

$$\sum_{k=1}^{\binom{D}{s}} \sum_{(j_s=1)}^{\binom{D}{s}}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\cdot)} \\
 & \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\cdot)} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \\
 & \frac{(D + n - n_i - l_i)! \cdot (n - s)!}{(D + n - n_i - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_{sa}^s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s > l_{ik} \wedge l_{ik} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = l_s \geq 0 \wedge$$

$$j_s < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, \mathbb{k}_3, n\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{lk}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(l_{sa} + j^{sa} - l_{ik} - j_{sa})!}{(l_{sa} + j^{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \\
& \frac{(l_i + j^{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j^{sa} - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{( )} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} .
\end{aligned}$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\sum_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{( )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s}^{l_i} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{(j_s)} \sum_{(j_s=1)}^{(j_s)}$$

$$\sum_{j_{ik}=j_s}^{(j_s)} \sum_{(j_{sa}=j_{sa})} \sum_{j_i=s}^{(j_i)}$$

$$\sum_{n_i=1}^{(n)} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n)}$$

$$\sum_{(n_{ik}=n_{ik}+j_{ik}-\mathbb{k}_2)}^{(n)} \sum_{(n_s=n_{sa}+j_{sa}-j_i-\mathbb{k}_3)}^{(n)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i + \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}.$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$



$$\mathbb{k}_Z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\quad)} \sum_{j_i=s}^{l_{sa}+s-j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{(n_{sa}+j_{sa}^{ik}-\mathbb{k}_3)} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(n-j_i+1)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1)}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{sa} - j_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - j_{sa} - \mathbb{k}_3 - 1)!}{(j_i + j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)}$$



$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{(D - \mathbf{n} - l_i)!}{(D + s - \mathbf{n} - l_i)!} \cdot (n - s)!$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s}^{l_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - 1)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{sa}^{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!} \cdot$$

$$\sum_{j_s=1}^{(n)} \sum_{j_s=1}^{(n)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_i=s}^{(n)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(n)}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$n \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$



$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{s=1}^{\binom{D}{s}} \sum_{(j_s=1)}^{\binom{D-s}{j_s}} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{\binom{l_i+j_{sa}-s}{j_{sa}}} \sum_{j_i=j_{sa}^{ik}-j_{sa}}^{\binom{l_i+j_{sa}-s}{j_{sa}}} \sum_{n_{sa}=n-j_{sa}+1}^n \sum_{n_{ik}=n_{sa}+\mathbb{k}(n_{ik}-n_{sa})-j_{ik}+\mathbb{k}_1+1}^n \sum_{n_s=n-j_{sa}+1}^n \sum_{(n_s=n-j_i+1)}^{\binom{n_{sa}+j_{sa}-j_i-\mathbb{k}_2}{n_{sa}+j_{sa}-j_i-\mathbb{k}_3}} \frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{sa}-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}^{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_{ik}-j_{sa}^{ik})!}{(l_{ik}-j_{ik})! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \sum_{k=1}^{\binom{D}{k}} \sum_{(j_s=1)}^{\binom{D-k}{j_s}}$$



$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\cdot)} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\cdot)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \\
& \frac{(D + n - n_i - l_i)! \cdot (n - s)!}{(D + n - n_i - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{ik} + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = l_s \geq 0 \wedge$$

$$j_s < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, \mathbb{k}_3, n\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - \mathbb{K}_3 - 1)!}{(n_s - j_i - \mathbf{n} - \mathbb{K}_3 - 1 - j_i)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D - j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{K}_1+1)}^{(\quad)} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{K}_3)}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!}{(n_i - \mathbf{n} - \mathbb{K}_1 - \mathbb{K}_2 - \mathbb{K}_3)!} \cdot \\
& \frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot
\end{aligned}$$



$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} \delta_{j_s, j_{ik}, j_i} &= \sum_{k=1}^{\binom{()}{j_s}} \sum_{j_i=j^{sa}+j_{sa}^{ik}-j_{sa}}^{k+j_{sa}-j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}} \\ &= \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\ &= \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\quad \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\ &\quad \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \end{aligned}$$



$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{\sum_{s=1}^{(n)} \Delta} \sum_{j_{ik}=j_{sa}^{ik}}^{\sum_{j_s=1}^{(n)} \Delta} \sum_{j_i=s}^{\sum_{j_s=1}^{(n)} \Delta} \sum_{\mathbb{k}_1=1}^n \sum_{\mathbb{k}_2=1}^{(n)} \sum_{\mathbb{k}_3=1}^{(n)} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (n - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq \mathbf{n} + s - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^s - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_s = 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$



$$fzS_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{ik}}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2+j_{ik}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{ik}+j_{ik}-j^{sa}}^{(n_{ik}-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n+\mathbb{k}_3-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\frac{(n_{ik}-j_{ik}-\mathbb{k}_1+1)!}{(j_i-2)! \cdot (n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot$$

$$\frac{(n_{ik}-j_{ik}-\mathbb{k}_1+1)!}{(j^{sa}-j_{ik}-\mathbb{k}_1+1)! \cdot (n_{ik}-j_{ik}-\mathbb{k}_1+1)!} \cdot$$

$$\frac{(n_{sa}-j_{ik}-\mathbb{k}_3+1)!}{(j_i-j_{ik}-\mathbb{k}_3+1)! \cdot (n_{sa}-j_{ik}-\mathbb{k}_3+1)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot$$

$$\frac{(l_{ik}-j_{sa}^{ik})!}{(l_{ik}-j_{ik})! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot$$

$$\sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \sum_{j_i=s}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{( )}$$



$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \frac{(D - \mathbf{n} - l_i)!}{(D + s - \mathbf{n} - l_i)!} \cdot (n - s)!$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}, j_i}} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - 1)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{sa}^{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!} \cdot$$

$$\sum_{j_s=1}^{(n)} \sum_{j_s=1}^{(n)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_i=s}^{(n)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(n)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(n)}$$

$$\frac{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$n \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$



$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{s=1}^{\binom{()}{s}} \sum_{(j_s=1)}^{\binom{()}{j_s}} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}-j_{sa}^{ik})}^{\binom{()}{j_{sa}}} \sum_{j_i=j_{sa}^{ik}}^n \sum_{(j_i=j_{sa}^{ik}-j_{sa}^{ik})}^{\binom{()}{j_i}} \sum_{n_{ik}=n_{sa}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1+1}^n \sum_{(n_{ik}=n_{sa}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1+1)}^{\binom{()}{n_{ik}}} \sum_{n_s=n_{sa}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^n \sum_{(n_s=n_{sa}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}^{\binom{()}{n_s}} \sum_{n_5=n-j_i+1}^n \sum_{(n_5=n-j_i+1)}^{\binom{()}{n_5}} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_{sa}^{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa}^{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j_{sa}^{ik} - 1)! \cdot (n_{sa} + j_{sa}^{ik} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=1}^{\binom{()}{k}} \sum_{(j_s=1)}^{\binom{()}{j_s}}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}^{(\cdot)} \\
 & \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}^{(\cdot)} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \\
 & \frac{(D + n - n_i)!}{(D + n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_i \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = l_s \geq 0 \wedge$$

$$j_s < j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, \mathbb{k}_3, n\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^s+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{j_i=s}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - j_i - 1)!}{(n_s - j_i - \mathbf{n} - j_i - 1)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik}^{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_i + j_i - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{( )} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} .
\end{aligned}$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\begin{aligned} j_s, j_{ik}, j^{sa}, j_i &= \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \\ &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa})}^{l_i} \sum_{j_i=s}^{l_i} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\ &\sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\ &\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \end{aligned}$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(\mathbf{l}_{ik} - j_{sa}^{ik})!}{(\mathbf{l}_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}.$$

$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - l_i)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

~~$$\sum_{k=1}^n (J_{S_k} - J_{S_{k-1}})$$~~

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_i=s}^{( )}$$

$$\sum_{i=1}^n \sum_{k=1}^{\infty} (n_{ik} - j_{ik} - \mathbb{K}_1 + 1)$$

$$\sum_{s_a=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_{sa} + j_{sa}^S + j_{sa} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sq}^s + j_{sq}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j_{sa}^{ik}-j_{sa}}^{l_i} \sum_{n=n_{ik}+j_{sa}-\mathbb{k}_2}^n \sum_{(n_i=j_{ik}-\mathbb{k}_1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}=n_{sa}+\mathbb{k}_3-j_{ik}+1)}^{(n_{ik}=n_{sa}+\mathbb{k}_3-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \frac{(n_i-j_{ik}-\mathbb{k}_1-1)!}{(n_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_{sa}-j_{sa}-1)! \cdot (n_{sa}+j_{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_{ik}-j_{sa}^{ik})!}{(l_{ik}-j_{ik})! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \frac{(l_i+j_{sa}-l_{sa}-s)!}{(j_{sa}+l_i-j_i-l_{sa})! \cdot (j_i+j_{sa}-j_{sa}-s)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)}$$



$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+\mathbb{k}_2)}$$

$$\sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j_{ik}-\mathbb{k}_3)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}$$

$$\frac{(D + n - l_i)! \cdot (n - s)!}{(D + n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik}^{ik} - j_{sa}^{ik} < j_{ik} \leq j_{sa}^{sa} + j_{sa}^{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge l_{ik} + j_{sa} - s > l_{sa} \wedge$$

$$D \geq n < n \wedge I = l_s > 0 \wedge$$

$$j_s < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{sa}, \dots, \mathbb{k}_3, n\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{j_i=j^{sa}+s-j_{sa}}^{l_i}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - \mathbb{k}_3 - j_i - 1)!}{(n_s - j_i - \mathbf{n} - \mathbb{k}_3 - j_i)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik}^{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_i + j_{sa} - l_{sa} - s)!}{(j_{sa} + l_i - j_{sa} - s)! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \\
& \sum_{k=1} \sum_{(j_s=1)}^{( )} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \sum_{j_i=s} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{( )} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} .
\end{aligned}$$



$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$D \geq \mathbf{n} < n \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq \mathbf{n} < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{K}_1, j_{sa}^{ik}, \mathbb{K}_2, j_{sa}, \dots, \mathbb{K}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{K} \wedge$$

$$\mathbb{K}_z: z = 3 \wedge \mathbb{K} = \mathbb{K}_1 + \mathbb{K}_2 + \mathbb{K}_3 \Rightarrow$$

$$\sum_{j_s, j_{ik}, j_{sa}^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_i+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{K}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{K}_2+\mathbb{K}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{K}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{K}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{K}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{K}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{K}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{K}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{K}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{K}_3)!}$$



$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(j_s - j_i)} \sum_{j_{ik}=j_{sa}^{ik}}^{(j^{sa} - j_{sa})} \sum_{j_i=s}^{(j_s - j_i)} \\
& \sum_{n+l_k}^n \sum_{(n_{ik}=n_i - j_{ik} - k_1 + 1)}^{(j_s - j_i)} \\
& \sum_{s_a=n_{ik}+j_{ik}-j^{sa}-k_2}^{(j_s - j_i)} \sum_{(n_s=n_{sa}+j_{sa}^{ik}-j_i-k_3)}^{(j_s - j_i)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^{ik} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - k_1 - k_2 - k_3)!}{(n_i - n - k_1 - k_2 - k_3)!} \cdot \\
& \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D + n - l_i \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j_{sa}, j_i} = \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik})}^{(l_{sa})} \sum_{j_i=j_{sa}^{ik}}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}=n_{sa}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}=n_{sa}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{(n_s=n+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{(n_s=n-j_i+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - 2)! \cdot (n_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{sa} + j_{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} - \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \sum_{j_i=s}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1)}^{(\cdot)} \\
 & \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j_i-j-\mathbb{k}_3)}^{(\cdot)} \\
 & \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot \\
 & \frac{1}{(n + 2 \cdot j_i + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \\
 & \frac{(D + n - n_i)!}{(D + n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge \\
 & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_i \wedge \\
 & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge j^{sa} - j_{sa} - j_i \leq n \wedge \\
 & l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\
 & D \geq n < n \wedge l = l_s = 0 \wedge \\
 & j_s < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\
 & s: \{0, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, \mathbb{k}_3, n\} \wedge \\
 & s \geq 6 \wedge s = s + \mathbb{k} \wedge \\
 & \mathbb{k}_z: z = 3 \wedge \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow
 \end{aligned}$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j_{sa}, j_i} &= \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)} \\
 \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\cdot)} \sum_{j_i=s}^{l_i}
 \end{aligned}$$



$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \\
& \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \\
& \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - \mathbb{k}_3 - j_i - 1)!}{(n_s - j_i - \mathbf{n} - \mathbb{k}_3 - j_i)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - j_{sa} - j^{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \sum_{j_i=s}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \\
& \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{(\quad)} \\
& \frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot
\end{aligned}$$



$$\frac{1}{(n + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, \mathbb{k}_3, j_{sa}^i\} \wedge$$

$$s \geq 6 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\sum_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{( )} \sum_{j_i=s}^{l_{sa}+s-j_{sa}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!}.$$



$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}.$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}.$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}.$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}.$$

$$\sum_{k=1}^{(j_s - j_i)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(j^{sa} - j_{sa})} \sum_{j_i=s}$$

$$\sum_{\mathbb{k}=\mathbb{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{ik}=n_i - j_{ik} - \mathbb{k}_1 + 1)}^{( )}$$

$$\sum_{j_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{( )} \sum_{(n_s=n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}^{( )}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(l_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}.$$

$$\frac{1}{(\mathbf{n} + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!}.$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$

$$((\mathbf{n} \geq \mathbf{n} < \mathbf{n} \wedge l_s = 1 \wedge l_i \leq D + s - \mathbf{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq \mathbf{n} < \mathbf{n} \wedge l_s = 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$







$$\frac{(l_i + j_{sa} - l_{sa} - s)!}{(j^{sa} + l_i - j_i - l_{sa})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{j_s=\quad}^{(\quad)}$$

$$\sum_{j_{ik}=\quad}^{(\quad)} \sum_{j_i=\quad}^{(\quad)} \sum_{j_i=s}^{(\quad)}$$

$$\sum_{n+\mathbb{k}(n_{ik}-j_{ik}-\mathbb{k}_1+1)}^{(\quad)} \sum_{j_i=\quad}^{(\quad)}$$

$$\sum_{n_{sa}=n_{ik}-j^{sa}-\mathbb{k}_2}^{(\quad)} \sum_{n_{sa}=n_{sa}+j^{sa}-j_i-\mathbb{k}_3}^{(\quad)}$$

$$\frac{(n_i + 2 \cdot j_i + j_{sa}^{s_{ik}} - j_s - j_{ik} - 3 \cdot s - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 - \mathbb{k}_3)!} \cdot$$

$$\frac{1}{(n_i + 2 \cdot j_i + j_{sa}^s + j_{sa}^{ik} - j_s - j_{ik} - 3 \cdot s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - s)!}$$



## DİZİN

## B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.1.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.3.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.1.1/153-154

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/153-154

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.3.1/153-154

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.3.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.4.1.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.4.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.4.2.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.4.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.4.3.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.4.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu



simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.1/156-157  
ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1/165  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.1.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/156-157  
ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/165  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.1.2.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.3.1/156-157  
ilk ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.3.1/165  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.1.3.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.4.1/3-4  
ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.4.1/61  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.1.4.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.6.2.1/3-4  
ilk düzgün simetrik olasılık,  
2.3.2.2.1.6.2.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu

bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.6.3.1/3-4  
ilk düzgün simetrik olasılık,  
2.3.2.2.1.6.3.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.1.1.1/77  
ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1/61  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.1.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/77  
ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/61  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.1.2.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.1.1.3.1/77  
ilk ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.3.1/61  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.1.1.3.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.1.1.1/4  
ilk düzgün simetrik olasılık,  
2.3.2.2.2.1.1.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre



ilk simetrik olasılık,  
2.3.2.1.2.1.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.1.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.1.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.1.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.2.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.2.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.2.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.2.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.2.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.2.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.2.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.4.1.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.4.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.4.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.4.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.4.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.4.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.6.1.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.6.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.6.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.6.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre



ilk simetrik olasılık,  
2.3.2.1.2.6.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.6.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.7.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.7.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.7.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
bağımsız simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.7.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.7.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.7.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.7.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.7.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrinin ilk  
ve herhangi bir durumunun bulunabileceği  
olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.1.1.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.1.1.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrinin ilk ve herhangi bir durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.1.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.1.2.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrinin ilk ve herhangi bir durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.1.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.1.3.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrinin ilk ve herhangi bir durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrinin ilk ve herhangi bir  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrinin ilk ve herhangi bir  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.3.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrinin  
herhangi iki durumuna bağlı



ilk simetrik olasılık,  
2.3.2.1.4.1.1.1/4  
ilk düzgün simetrik olasılık,  
2.3.2.2.4.1.1.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.4.1.1.1/5  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrisinin herhangi iki durumuna bağlı  
ilk simetrik olasılık,  
2.3.2.1.4.1.2.1/4  
ilk düzgün simetrik olasılık,  
2.3.2.2.4.1.2.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.4.1.2.1/5  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin herhangi iki durumuna bağlı  
ilk simetrik olasılık,  
2.3.2.1.4.1.3.1/4  
ilk düzgün simetrik olasılık,  
2.3.2.2.4.1.3.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.4.1.3.1/5  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrisinin her  
durumunun bulunabileceği olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.4.1.1.1/701-702  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrisinin her durumunun bulunabileceği  
olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.4.1.2.1/701-702  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin her durumunun bulunabileceği  
olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.4.1.3.1/701-702  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrisinin ilk  
ve herhangi iki durumunun bulunabileceği  
olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.5.1.1.1/5  
ilk düzgün simetrik olasılık,  
2.3.2.2.5.1.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.5.1.1.1/6  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrisinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.5.1.2.1/5  
ilk düzgün simetrik olasılık,  
2.3.2.2.5.1.2.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.5.1.2.1/6  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.5.1.3.1/5  
ilk düzgün simetrik olasılık,  
2.3.2.2.5.1.3.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.5.1.3.1/6  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrisinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.5.2.1.1/6-7  
ilk düzgün simetrik olasılık,  
2.3.2.2.5.2.1.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.5.2.1.1/8  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrisinin ilk ve herhangi iki  
durumunun bulunabileceği olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.5.2.2.1/6-7  
ilk düzgün simetrik olasılık,  
2.3.2.2.5.2.2.1/3-4  
ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.5.2.2.1/8  
Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrisinin ilk ve herhangi iki  
durumunun bulunabileceği olaylara göre  
ilk simetrik olasılık,  
2.3.2.1.5.2.3.1/5  
ilk düzgün simetrik olasılık,  
2.3.2.2.5.2.3.1/3-4



ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.5.2.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrinin ilk  
ve herhangi iki durumunun bulunabileceği  
olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.8.1.1.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.8.1.1.1/5

dizilimsiz bağımlı durumlu bağımsız  
simetrinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre herhangi iki  
duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.8.1.2.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.8.1.2.1/5

dizilimsiz bağımlı durumlu bağımsız  
simetrinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre herhangi iki  
duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.8.1.3.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.8.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrinin ilk ve herhangi iki durumunun  
bulunabileceği olaylara göre herhangi iki  
duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.8.2.1.1/6-7

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.8.2.1.1/6-7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrinin ilk ve herhangi iki  
durumunun bulunabileceği olaylara göre  
herhangi iki duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.8.2.2.1/6-7

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.8.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrinin ilk ve herhangi iki  
durumunun bulunabileceği olaylara göre  
herhangi iki duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.8.2.3.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.8.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrinin ilk  
herhangi bir ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.1.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.1.1.1/4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.1.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.6.1.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.1.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.1.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.2.1.1/6

ilk düzgün simetrik olasılık,  
2.3.2.2.6.2.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.2.2.1/6



ilk düzgün simetrik olasılık,  
2.3.2.2.6.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.2.3.1/4-5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.2.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.4.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.4.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.4.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.4.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.4.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.4.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.4.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.4.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.4.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.6.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.6.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.6.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.6.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.6.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.6.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.6.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.6.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.6.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.7.1.1/6

ilk düzgün simetrik olasılık,  
2.3.2.2.6.7.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.7.2.1/6

ilk düzgün simetrik olasılık,  
2.3.2.2.6.7.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.7.3.1/4-5



ilk düzgün simetrik olasılık,  
2.3.2.2.6.7.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.7.3.1/5

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

ilk simetrik olasılık,  
2.3.2.1.9.1.1.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.1.1.1/5

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

ilk simetrik olasılık,  
2.3.2.1.9.1.2.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.1.3.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.1.3.1/5

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

ilk simetrik olasılık,  
2.3.2.1.9.2.1.1/6

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.2.1.1/7

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

ilk simetrik olasılık,  
2.3.2.1.9.2.2.1/6

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.2.2.1/7

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

ilk simetrik olasılık,  
2.3.2.1.9.2.3.1/4-5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.2.3.1/5

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

ilk simetrik olasılık,  
2.3.2.1.9.4.1.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.4.1.1/7

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

ilk simetrik olasılık,  
2.3.2.1.9.4.2.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımlı simetrinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.4.3.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.4.3.1/7

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

ilk simetrik olasılık,  
2.3.2.1.9.6.1.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.6.1.1/7

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



ilk simetrik olasılık, 2.3.2.1.9.6.2.1/5  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.6.2.1/7  
 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  
 ilk simetrik olasılık, 2.3.2.1.9.6.3.1/5  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.6.3.1/7  
 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  
 ilk simetrik olasılık, 2.3.2.1.9.7.1.1/6  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.1.1/7  
 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  
 ilk simetrik olasılık, 2.3.2.1.9.7.2.1/6  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.2.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı  
 ilk simetrik olasılık, 2.3.2.1.9.7.3.1/4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.3.1/5  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre  
 ilk simetrik olasılık, 2.3.2.1.7.1.1.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.1.1.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre  
 ilk simetrik olasılık, 2.3.2.1.7.1.2.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.1.2.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.2.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre  
 ilk simetrik olasılık, 2.3.2.1.7.1.3.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.1.3.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.3.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre  
 ilk simetrik olasılık, 2.3.2.1.7.2.1.1/7  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.2.1.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.1.1/10-11  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre  
 ilk simetrik olasılık, 2.3.2.1.7.2.2.1/7  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.2.2.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.2.1/10-11  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre  
 ilk simetrik olasılık, 2.3.2.1.7.2.3.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.2.3.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.3.1/7



Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.4.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.7.4.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.4.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.7.4.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.4.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.7.4.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.6.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.7.6.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.6.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.7.6.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.6.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.7.6.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bir bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.7.1.1/7

ilk düzgün simetrik olasılık,  
2.3.2.2.7.7.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.7.2.1/7

ilk düzgün simetrik olasılık,  
2.3.2.2.7.7.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.7.7.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.7.7.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.10.1.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.1.1/5-6



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

ilk simetrik olasılık, 2.3.2.1.10.1.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.2.1/5-6

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

ilk simetrik olasılık, 2.3.2.1.10.1.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.3.1/5-6

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

ilk simetrik olasılık, 2.3.2.1.10.2.1.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.1.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.2.2.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.2.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.2.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.3.1/5-6

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

ilk simetrik olasılık, 2.3.2.1.10.4.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.1.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.4.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.2.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.4.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.3.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.6.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.1.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.6.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.2.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.6.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.3.1/7-8



Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.10.7.1.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.10.7.2.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.10.7.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.1.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.1.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.1.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.2.1.1/8-9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.2.2.1/9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.2.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.4.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,

2.3.2.1.11.4.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.2.1/9



Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.4.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.3.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.6.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.6.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.6.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.3.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.7.1.1/8-9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.7.2.1/8-9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumda bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.7.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.3.1/9



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 olan ve bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılığın, tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu olan ve bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılığın, tanım ve eşitlikleri verilmektedir.

VDOİHİ’nin diğer ciltlerinde olduğu gibi bu ciltte de verilen eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden teorik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde dış kaynak kullanılmamıştır.