VDOİHİ

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

Cilt 2.3.3.1.5.1.1.2

İsmail YILMAZ

2023

Matematik / İstatistik / Olasılık

ISBN: 978-625-6521-26-1

© 1. e-Basım, Mayıs 2023

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık Cilt 2.3.3.1.5.1.1.2

İsmail YILMAZ

Copyright © 2023 İsmail YILMAZ

Bu kitabın (cildin) bütün hakları yazara aittir. Yazarın yazılı izni olmaksızın, kitabın tümünün veya bir kısmının elektronik, mekanik ya da fotokopi yoluyla basımı, yayımı, çoğaltımı ve dağıtımı yapılamaz.

KÜTÜPHANE BİLGİLERİ

Yılmaz, İsmail.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık-Cilt 2.3.3.1.5.1.1.2 / *İsmail YILMAZ*

e-Basım, s. XXVI + 653

Kaynakça yok, dizin var

ISBN: 978-625-6521-26-1

1. Bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

Dili: Türkçe + Matematik Mantık

Türkiye Cumhuriyeti Devleti
Kuruluşunun
100.Yılı Anısına

M. Atatürk

DÜZELTME

Bu cilt için

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

simgesi yerine

$_{fz}S^{DST}_{j_s,j_{ik},j^{sa}}$

simgesi olmalı.

d

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 deklaritif 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 **D**eğişkenleri **O**lasılık ve **İ**htimal **H**esaplama **İ**statistiği (VDOİHİ) ile olasılık ve ihtimal yasa konumuna getirilmiştir.

VDOİHİ'de Olasılık;

- ✓ 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 teknolojisinin temelidir.
- ✓ Teorik kabullerle genetikle ilişkilendirilmiştir.
- ✓ Bilgi merkezli değerlendirme yöntemidir.

Sanırım bilgi ve teknolojideki kaderimiz veriyle ilişkilendirilmiş.

f

İÇİNDEKİLER

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar 1
Simetriden Seçilen Üç Duruma Göre Tek Kalan Simetrik Olasılık 3
Dizin .....

GÜLDÜNYA

Simge ve Kısaltmalar

n: olay sayısı

$\boldsymbol{n}$: bağımlı olay sayısı

$\mathbb{m}$: bağımsız olay sayısı

$\imath$: bağımsız durum sayısı

I: simetrinin bağımsız durum sayısı

$\mathbb{l}$: simetrinin bağımlı durumlarından önce bulunan bağımsız durum sayısı

$\boldsymbol{I}$: simetrinin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

$\mathbb{k}$: simetrinin bağımlı durumları arasındaki bağımsız durumların sayısı

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

$\boldsymbol{l}$: ilgilenilen bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlarındaki sırası

$_{\boldsymbol{i}}\boldsymbol{l}$: simetrinin ilk bağımlı durumunun, bağımlı olasılık farklı dizilimsiz dağılımın son olayı için sırası. Simetrinin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırası

$\boldsymbol{l_i}$: simetrinin son bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrinin birinci bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırası

$\boldsymbol{l_s}$: simetrinin ilk bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrinin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırası

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

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

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

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

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

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

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

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

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

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

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

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

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

D: bağımlı durum sayısı

D_i: olayın durum sayısı

s: simetrinin bağımlı durum sayısı

$\boldsymbol{s}$: simetrik durum sayısı. Simetrinin bağımlı ve bağımsız durum sayısı

m: olasılık

M: olasılık dağılım sayısı

U: uyum eşitliği

u: uyum derecesi

s_i: olasılık dağılımı

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

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

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

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

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

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

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

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

$_{fz}S_{j^{sa},D}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin durumuna bağlı tek kalan simetrik olasılık

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

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

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

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

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

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

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

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

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

$_{fz}S_{j_s,j^{sa}}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}S_{j_s,j^{sa},0}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir

durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}S^{DST}_{j_s,j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz,0}S^{DST}_{j_s,j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz,0}S^{DST}_{j_s,j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz,0}S^{DST}_{j_s,j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}S^{DST}_{j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin herhangi iki durumuna bağlı tek kalan simetrik olasılık

$_{fz}S^{DST}_{j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin herhangi iki durumuna bağlı tek kalan simetrik olasılık

$_{fz}S^{DST}_{j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin herhangi iki durumuna bağlı tek kalan simetrik olasılık

$_{fz}S^{DST}_{j_{ik},j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin her durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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

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

$_{fz}S^{DST}_{j_s,j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}S^{DST}_{j_s,j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz}S^{DST}_{j_s,j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$_{fz,0}S^{DST}_{j_s,j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz,0}S_{j_s,j_{ik},j^{sa},0}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz,0}S_{j_s,j_{ik},j^{sa},D}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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

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

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

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

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

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

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

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

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

${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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

${}_{fz}S^{DST}_{j_s,j_{ik},j^{sa},j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz,0}S^{DST}_{j_s,j_{ik},j^{sa},j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz,0}S^{DST}_{j_s,j_{ik},j^{sa},j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz,0}S^{DST}_{j_s,j_{ik},j^{sa},j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}^{0}_{fz}S^{DST}_{j_s,j_{ik},j^{sa},j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}^{0}_{fz}S^{DST}_{j_s,j_{ik},j^{sa},j_i,0}$: 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 tek kalan simetrik olasılık

${}^{0}_{fz}S^{DST}_{j_s,j_{ik},j^{sa},j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz}S^{DST}_{\Rightarrow j_s,j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan simetrik olasılık

${}_{fz}S^{DST}_{\Rightarrow j_s,j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan simetrik olasılık

${}_{fz}S^{DST}_{\Rightarrow j_s,j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan simetrik olasılık

${}_{fz,0}S^{DST}_{\Rightarrow j_s,j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan simetrik olasılık

${}_{fz,0}S^{DST}_{\Rightarrow j_s,j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan simetrik olasılık

${}_{fz,0}S^{DST}_{\Rightarrow j_s,j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi

iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan simetrik olasılık

$_{fz}S^{DST}_{\Rightarrow j_s, j_{ik}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan simetrik olasılık

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

$_{fz}S^{DST}_{\Rightarrow j_s, j_{ik}, j_i, D}$: 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 tek kalan simetrik olasılık

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

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

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

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

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

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

$_{fz}S^{DST}_{\Rightarrow j_s, j_{ik}, j^{sa}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık

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

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

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

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

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

$_{fz,0}S^{DST}_{\Rightarrow j_s, j_{ik}, j^{sa}, j_i, D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık

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

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

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

$_{fz}S^{DST}_{\Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı tek kalan simetrik olasılık

$_{fz}S^{DST}_{\Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i, 0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı tek kalan simetrik olasılık

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

$_{fz,0}S^{DST}_{\Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

r

herhangi iki ve son durumuna bağlı tek kalan simetrik olasılık

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

$_{fz,0}S^{DST}_{\Rightarrow j_s ,\Rightarrow j_{ik},j^{sa},j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı tek kalan simetrik olasılık

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

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

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

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

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

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

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

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

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

$_{fz}S_{j^{sa}}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin durumuna bağlı tek kalan düzgün simetrik olasılık

$_{fz}S_{j^{sa},0}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin durumuna bağlı tek kalan düzgün simetrik olasılık

$_{fz}S_{j^{sa},D}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin durumuna bağlı tek kalan düzgün simetrik olasılık

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

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

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

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

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

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

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

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

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

$_{fz}S_{j_s,j^{sa}}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

t

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

$_{fz}S^{DSST}_{j_s,j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$_{fz,0}S^{DSST}_{j_s,j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$_{fz,0}S^{DSST}_{j_s,j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$_{fz,0}S^{DSST}_{j_s,j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$_{fz}S^{DSST}_{j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin herhangi iki durumuna bağlı tek kalan düzgün simetrik olasılık

$_{fz}S^{DSST}_{j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin herhangi iki durumuna bağlı tek kalan düzgün simetrik olasılık

$_{fz}S^{DSST}_{j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin herhangi iki durumuna bağlı tek kalan düzgün simetrik olasılık

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

$_{fz}S^{DSST}_{j_s,j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

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

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

$_{fz,0}S^{DSST}_{j_s,j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$_{fz}S_{j_s,j_{ik},j_i}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

$_{fz}S_{j_s,j_{ik},j_i,D}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

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

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

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

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

$_{fz}^{0}S_{j_s,j_{ik},j_i,D}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

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

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

$_{fz,0}S_{j_s,j_{ik},j^{sa},j_i}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

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

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

${}^{0}_{fz}S^{DSST}_{j_s,j_{ik},j^{sa},j_i,0}$: 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 tek kalan düzgün simetrik olasılık

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

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

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

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

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

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

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

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

simetrinin durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz}S_{j^{sa},0}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz}S_{j^{sa},D}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

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

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

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

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

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

$_{fz,0}S_{j_s,j_i,D}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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

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

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

$_{fz}S_{j_s,j^{sa}}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}S_{j_s,j^{sa},0}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_s,j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin herhangi iki durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin herhangi iki durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin herhangi iki durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_s,j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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

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

$_{fz,0}S^{DOST}_{j_s,j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j_{ik},j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j_{ik},j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_s,j_{ik},j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_s,j_{ik},j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{j_s,j_{ik},j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j_{ik},j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j_{ik},j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{j_s,j_{ik},j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}{}^{0}S^{DOST}_{j_s,j_{ik},j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}{}^{0}S^{DOST}_{j_s,j_{ik},j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$_{fz}{}^{0}S^{DOST}_{j_s,j_{ik},j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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

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

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

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

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

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

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

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

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

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

$_{fz}S^{DOST}_{\Rightarrow j_s,j_{ik},j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan düzgün olmayan simetrik olasılık

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

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

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

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

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

$_{fz}S^{DOST}_{\Rightarrow j_s, j_{ik}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{\Rightarrow j_s, j_{ik}, j_i, 0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz}S^{DOST}_{\Rightarrow j_s, j_{ik}, j_i, D}$: 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 tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{\Rightarrow j_s, j_{ik}, j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{\Rightarrow j_s, j_{ik}, j_i, 0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan düzgün olmayan simetrik olasılık

$_{fz,0}S^{DOST}_{\Rightarrow j_s, j_{ik}, j_i, D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan düzgün olmayan simetrik olasılık

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

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

$_{fz}{}^{0}S^{DOST}_{\Rightarrow j_s, j_{ik}, j_i, D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı tek kalan düzgün olmayan simetrik olasılık

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

E2

BAĞIMLI ve BİR BAĞIMSIZ OLASILIKLI FARKLI DİZİLİMSİZ DAĞILIMLAR

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar

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

Bağımlı dağılım ve bir bağımsız olasılıklı durumla oluşturulabilen dağılımlara ve bağımlı olasılıklı dağılımların kendi olay sayılarından (bağımlı olay sayısı) büyük olanlara (bağımlı olay sayısı) dağılımıyla bağımlı ve bir bağımsız olasılıklı dağılımlar denir. Bağımlı dağılım farklı dizilimsiz dağılımlara uygulandığında, bu dağılımlara bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlar denir. Bağımlı ve bir bağımsız olasılıklı dağılımlar; bağımlı dağılımlara, bağımsız durumlar ilk olaydan dağıtılmaya başlanarak tabloları elde edilir. Bu bölümde verilen eşitlikler, bu yöntemle elde edilen kurallı tablolara göre verilmektedir. Farklı dizilimsiz dağılımlarda durumların küçükten-büyüğe sıralamasıyla elde edilebilen kurallı tablolar kullanılmaktadır. Farklı dizilimsiz dağılımlarda durumların küçükten-büyüğe sıralama için verilen eşitliklerde kullanılan durum sayılarının düzenlenmesiyle, büyükten-küçüğe sıralama durumlarının eşitlikleri elde edilebilir.

Farklı dizilimsiz dağılımlar, dağılımın ilk durumuyla başlayan (bunun yerine farklı dizilimli dağılımlarda simetrinin ilk durumuyla başlayan dağılımlar), dağılımın ilk durumu haricinde dağılımın herhangi bir durumuyla başlayan dağılımlar (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan bir durumla başlayan dağılımlar) ve dağılımın ilk durumu eşit olmayan dağılımının başladığı farklı ikinci durumla başlayıp simetrinin 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.

GÜDÜMYA

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 tanım[illegible] eşitlikleri verilmektedir.

Farklı dizilimsiz dağılımlarda simetrinin durumlarının olasılık dağılımındaki sıra[illegible] 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 kullanılacaktır. Bu eşitlikler, bir bağımlı ve bir bağımsız olasılıklı dağılımlar için VDO Cilt 1'de çıkarılan eşitliklerle birleştirilerek, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlar için yeni eşitlikleri elde edilecektir. Eşitlikleri adlandırılmasında bağımlı olasılıklı farklı dizilimsiz dağılımlarda kullanılan adlandırmalar kullanılacaktır. Bu adların başına simetrinin bağımlı ve bağımsız durumlarına göre ve dağılımın bağımsız veya bağımlı durumla başlamasına göre "Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı/bağımsız-bağımlı/bağımlı-bir bağımsız/bağımlı-bağımsız/bağımsız-bağımsız durumlu/bağımsız/bağımlı" kelimeleri getirilerek, simetrinin bağımlı 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 eşitlik kullanılması durumunda gerekmedikçe yeni tanımlama yapılmayacaktır.

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

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

GÜDÜNYA

SİMETRİDEN SEÇİLEN ÜÇ DURUMA GÖRE TEK KALAN SİMETRİK OLASILIK

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

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

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

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

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

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

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

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

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

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

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

$$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

$$\frac{(D + j_{sa} -$$

$$(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$$

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

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

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

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

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

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

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

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

D

j_{sa}

$\boldsymbol{s}: \{j_{sa}^{s},$

$s > 4 \wedge \boldsymbol{s} =$

$\mathbb{k}_{2}$

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

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

GULDUNYA

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

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

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

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

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

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

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

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

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+\quad\wedge$

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

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

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

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

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

$\boldsymbol{s}: \{j\quad \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=\quad+\mathbb{k} \wedge$

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

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

GÜLDÜNYA

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

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

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

$$\frac{(n_i}{(j_s-2)}$$

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad \right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!}$$

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

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

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

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

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

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

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

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

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

$D \geq \quad < n \wedge I \quad 0 \wedge$

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

$$\Big((D\geq \quad<n\wedge \boldsymbol{l_s}>\quad-\boldsymbol{n}+1\wedge$$

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

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

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

$$(D\geq \quad<n\wedge\boldsymbol{l_s}\quad-\boldsymbol{n}+1\wedge$$

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

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

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

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

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

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} +} $$

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

$$ \sum_{} \sum_{\boldsymbol{n} + j_s \quad (D-1)} $$

$$ \sum_{(n_i - j_s} $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{= \boldsymbol{n} + \mathbb{k} - j_s + 1)} $$

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

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

$$
\sum^{(\boldsymbol{l_s}+ \quad -\boldsymbol{l})}
$$

$$
j_{ik}=j^{sa}+ \quad j_{sa} \; (j^{sa}=\boldsymbol{l_{sa}}+ \quad)
$$

$$
\sum^{n} \sum^{(n_i-j_s+1)}
$$

$$
n_i=\boldsymbol{n}+\mathbb{k} \; (\quad -j_s+1)
$$

$$
\sum^{+j_s-j_{ik}} \sum^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \boldsymbol{l_i} - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

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

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

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

GULDUNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

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

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

$$
\sum_{(n_i-j_s}
$$

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \boldsymbol{l} - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

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

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

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

GUDUMYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

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

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{=\boldsymbol{l_{sa}}}^{(}
$$

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

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

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

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

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

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

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

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

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

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

GÜLDÜMYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

$$
{}_{fz}S_{j_s, j_{ik}, \cdots} = \sum_{k=\boldsymbol{l}}^{\cdots} \left(j_s = j_{ik} - j_{s\cdots} \right)
$$

$$
\boldsymbol{l_{sa}} \cdots j_{sa}+1 \quad \left(\right)
$$

$$
\sum \cdots \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa} \cdots - j_{sa} \left(j^{sa} = j_{ik} \cdots a - j_{sa}^{ik} \right)
$$

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

$$\frac{(D+j_{sa}-$$

$$\frac{}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}$$

$$\frac{(\boldsymbol{n}+j_{sa}-$$

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

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

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

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

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

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

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

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

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

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

$$\mathbb{k}\in\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa}^{s}\cdots,j_{sa}^{i}\right\}\wedge$$

$$s>4\wedge\boldsymbol{s}=s$$

$$\mathbb{k}_z\in z=\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$$

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

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

GÜLDÜNYA

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

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

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

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

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

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

$$\frac{(j_{ik}-j_s-\boldsymbol{l}-1)!}{(j_{ik}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$s>4 \wedge \boldsymbol{s}=\mathbb{k}_1+\mathbb{k} \wedge$

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

$D > \boldsymbol{n} < n \wedge j_s > D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

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

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

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

$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1$

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

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

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

$\quad \wedge I = \mathbb{k} > 0 \wedge$

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

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

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

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{}^{(\quad+1)}
$$

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

$$
\sum_{}^{\quad+1} \sum_{(\quad-j^{sa}+1)}
$$

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

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

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

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

$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1$

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

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

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

$\quad \boldsymbol{n} \quad \wedge I = \mathbb{k} > 0 \wedge$

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜDÜMYA

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

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

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

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{}^{n_{is}+j_s-j_{ik}} \sum_{}^{(n_{ik}+j_{ik}-j^{sa})}
$$

$$
\sum_{+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

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

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

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

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

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

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

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

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

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

GÜLDÜMYA

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

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

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

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

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

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

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

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

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

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

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} +$

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

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

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

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

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

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

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

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

GULDUNYA

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-j_{sa}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_i-j_{sa}+1)} \sum_{n_{ik}=\boldsymbol{n}+j_s-j_{ik}-\mathbb{k}_1-j_{sa}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} $$

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

$s > 4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j \quad = \boldsymbol{l_{ik}} \wedge \boldsymbol{l} \quad j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

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

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

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

$s > 4 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

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

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

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

GULDUNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$s > 4 \wedge \boldsymbol{s} = \mathbb{k}_1 + \mathbb{k} \wedge$

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

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

GULDUNYA

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

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

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

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{i}-n_{ik}-\mathbb{k}}{(j_{ik}-j_s-1)}$$

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

$$\frac{(n_{sa}}{(n_{sa}+j}$$

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - j$$

$$\frac{(D + j$$

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

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

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

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

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

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

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

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

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

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

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

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

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

GULDUNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$s > 1 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1}{(j_{ik}-j_s-1)}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{ik}}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(+\boldsymbol{l}}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}-1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\boldsymbol{n}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k}_1+\mathbb{k}_2+0 \wedge$

$j_{sa}^{i} \leq j_{sa}^{s}-1 \wedge j_{sa}^{ik} = j_{sa}^{s}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge s = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - \mathbb{k} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{\quad a + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (\quad + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \quad a - \boldsymbol{l_{sa}} - s)!}{(D - \quad j^{sa} - \boldsymbol{n} - \boldsymbol{l} \quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + \quad \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad k - 1 \leq j_{ik} \leq \quad sa + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq \quad a \leq \boldsymbol{n} + j_{sa} - \quad$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad > 0 \wedge$

$j_{sa} \leq \quad - 1 \wedge j_{sa}^{ik} = \quad - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k} \quad {}_{a}^{ik}, \mathbb{k}_2, j \quad \cdots, j_{sa}^{i}\} \wedge$

$s > \quad \wedge \quad = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \quad = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\ldots-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\ldots-n_{sa}-j^{sa})!}\cdot$$

$$\frac{\ldots-1)!}{(n_{sa}+\ldots-\boldsymbol{n}-1)!\cdot\ldots-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{\ldots-j_s-\ldots+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\ldots-j_{sa}^{ik}+1)!}{\ldots+\boldsymbol{l_{ik}}-\ldots)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \boldsymbol{l} + 1) \cdot (\quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{\quad + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (\quad + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \quad - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l}) \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + \quad \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - 1 \leq j_{ik} \leq \quad + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq \quad \leq \boldsymbol{n} + j_{sa} - \quad$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad - \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad > 0 \wedge$

$j_{sa} \leq \quad - 1 \wedge j_{sa}^{ik} = \quad - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_{\quad}^{ik}, \mathbb{k}_2, j_{\quad}^{i}, \cdots, j_{sa}^{i}\} \wedge$

$s > \quad \wedge \quad = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \quad = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\quad-n_{sa}-j^{sa})!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{(\quad-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+\quad-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+\quad \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq \quad a+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-\quad^{ik} \leq j^{sa}\quad \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\quad \wedge \boldsymbol{l_{sa}}+\quad-j_s \quad \boldsymbol{l_{ik}} \wedge$

$D \geq \quad < n \wedge I=\mathbb{k}>\quad \wedge$

$j_{sa} \leq j_{sa}^{i}-\quad \wedge j_{sa}^{ik}=j_s\quad -1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}:\{j\quad \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=\quad+\mathbb{k} \wedge$

$\quad \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

GÜLDÜNYA

$D > \boldsymbol{n} < n$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \mathbb{k} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s - \quad \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s - j_{sa}^{ik} \leq j^{sa} \leq \quad + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D > \quad n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \quad \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ \quad , \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i} \} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} + \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} \quad ^{ik} + 1 \quad j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} \quad _{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \; \sum^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \; \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik}}
$$

$$
\sum^{n} \; \sum_{(\quad j_s + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \quad \boldsymbol{n} + \quad j_s + 1)}
$$

$$
\sum_{n_{is} + j_s - j_{ik}} \; \sum_{(n_{ik} + j_{ik} - j^{\quad})}
$$

$$
\sum_{\quad + 1} \; \sum_{(\quad = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad j_{ik} - \mathbb{k}_1 \quad 1)!}{(j_{ik} \quad j_s - 1)! \cdot (n \quad + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n \quad - n_{sa} - 1)!}{(\quad a - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \quad > D \quad + 1 \wedge$

$2 \quad j_s \leq \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad a \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} \ a - D - 1)} \sum^{(n_i \ +1)} \sum^{n \ +\mathbb{k}\ (n_{is} = \boldsymbol{n} + \mathbb{k} - j \ )} \sum^{j \ - j_{ik} - \mathbb{k}_1 \ (\ + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum^{n_{ik} = \boldsymbol{n} \ - j_{ik} + 1 \ (n_{sa} \ a + 1)}
$$

$$
\frac{(n \ n_{is} - 1)!}{(j_s \ 2)! \cdot (n \ n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n \ - \mathbb{k}_1 - 1)!}{- j_s \ 1)! \cdot (\ + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^s \ - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ \boldsymbol{n} \ \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j \ - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} +}
$$

$$
(\boldsymbol{l_{ik}} + j_{sa} \quad j_{sa}^{ik} + 1)
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}\ (} \quad \sum_{\quad n + j_{s} \quad (D-1)}
$$

$$
(n_i - j_s +
$$

$$
\sum_{= \boldsymbol{n} + \mathbb{k}\ (} \quad \sum_{\boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} + \quad j_{ik} - \mathbb{k}_1 \quad (\quad sa} - \mathbb{k}_2)
$$

$$
\sum_{+ \mathbb{k}_2 - j_{ik}} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l}_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = n_i - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_s - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}_s = \boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l}_s + j_{sa}^{ik} - \boldsymbol{l}}^{\boldsymbol{l}_s + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(\ \ + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_{ik} - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l}_s - \boldsymbol{l} - 1)!}{(\boldsymbol{l}_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l}_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l}_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l}_s > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} \ldots +1)}^{(\ )} $$

$$ \sum_{j_{ik} = \ldots \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j \ldots - j_{sa}^{ik})}^{(\ )} $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

$$ \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j \ldots_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} \sum_{} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{sa} = j_{sa} - j_{sa} = \sum_{\boldsymbol{l}} \sum_{(j_s = j_{sa} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} - j_{sa}^{ik} - D - 1}^{j_{sa} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{[illegible]}sa} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+[illegible]-D-1}^{\boldsymbol{l}+1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f^{2}_{j_{ik}, j^{sa}} \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_zS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)}\sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{i} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa}-1)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{n}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-1)!\cdot(\boldsymbol{n}+j_{sa}-D-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{sa} \leq j^{sa}+j_{sa}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-\mathbb{k} \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+1 \wedge$

$\mathbb{k}_2: z=2 \wedge \mathbb{k}_2 = \mathbb{k}_1+\mathbb{k} \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j$ $- j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik}$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j$ $< j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S}$ $\cdot, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2$ $_{sa}, \cdots, j_{sa}^{i}\} \wedge$

s $4 \wedge \boldsymbol{s} = s$ $\wedge$

$\mathbb{k}_z$ $= 2 \wedge \mathbb{k} = \mathbb{k}_1$ $\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\ \ )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l_s}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(D+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l}\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s-j_{sa}^{ik}-1\leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-\boldsymbol{l}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}+1=\boldsymbol{l_s}\wedge\boldsymbol{l}+j_{sa}^{ik}-j_{sa}>$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}-\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}^{i}-1\wedge j_{sa}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}.\{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k}_2,j_{sa}\cdots,j_{sa}^{i}\}\wedge$

$s>\boldsymbol{s}=s+$

$\mathbb{k}_z:z=2\wedge=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_{sa}-\boldsymbol{l}-1)!}{(j_{sa}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-j^{sa}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{(j_s=\boldsymbol{l}-j_{sa}^{ik}+1)}^{(\boldsymbol{l}-j_{sa}^{ik}+1)}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j_{ik}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq D-\boldsymbol{n}+1\wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{sa} = j_{sa} - j_{sa} = \sum_{\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l}_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{\boldsymbol{l}_{ik} = \boldsymbol{l}_{ik} + \boldsymbol{n} - D}^{\boldsymbol{l}_{sa} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l}_{sa} + \boldsymbol{n} - D)}^{(\boldsymbol{l}_{sa} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right.
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\left. \frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!} \right.\cdot
$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ \ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(D+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l}+\boldsymbol{n}-D)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}-j_s+1}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}_2-j_{ik}-1}^{n_{ik}-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(j_{ik}+j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-j_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\quad-n_{sa}-j^{sa})!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}-\boldsymbol{l_{sa}}-j\quad\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq\quad<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\quad-\boldsymbol{l_{sa}}+\quad\leq\boldsymbol{l}\leq D-\boldsymbol{n}+1\wedge$

$2\leq\quad\leq j_{ik}-j_{sa}^{ik}+\quad\wedge j_s+j_{sa}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-\quad^{ik}\leq j^{sa}\leq\quad+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-\quad^{ik}+1=\quad\boldsymbol{_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<\quad\boldsymbol{l}=\mathbb{k}>0\wedge$

$<j^{i}\quad1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\ \mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{i\ \ } - 1)!}{(j_s - 2)! \cdot (\ \ \ \ \ \ j_s + 1)!} \cdot
$$

$$
\frac{\ \ - n_{ik}\ \ \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)!\ \ n_{is} + j_s\ \ n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik}\ \ n_{sa} - 1)!}{(j^{sa}\ \ j_{ik} - 1)!\ \ n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D\ \ \ \ m \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D\ \ \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$\ \ \ \ \ \ j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\quad)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \prod_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+j_s-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)} \right.
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \right.
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_{sa}} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{sa}} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j_{sa}-s)!}{}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \geq j_{ik} \leq j^{sa}-j_{sa}^{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{is} < j_{sa}^{ik}-1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s \geq 4 \wedge \boldsymbol{s} = \mathbb{k}_1 + \mathbb{k} \wedge$

$\mathbb{k}_z; z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} > s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\right.$$

GULDÜNYA

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{ik}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}^{(j_s=1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l}+1}\sum_{\boldsymbol{l_{ik}}+\boldsymbol{n}-j_{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(j_s-1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=}^{(}$$

$$\sum_{n_{is}+j_s-j_{ik}-}^{}\sum_{(n_{ik}+j_{ik}-j^{sa}}^{}$$

$$\sum_{n_{i}+\mathbb{k}_2}\sum_{(n_{s}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-$$

$$\frac{(n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-1)!\cdot(n_{i}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(-n_{sa}-1)!}{(-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq\boldsymbol{n}<$ $\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-}^{\boldsymbol{l}+1} \sum_{j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(}
$$

$$
\sum_{}^{(j_s+1)}
$$

$$
\sum_{+\mathbb{k}\ (n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
n_{is} \quad -j_{ik}-\mathbb{k}_1 \quad {}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)
$$

$$
\sum_{n_{ik}=\boldsymbol{n}-}^{} \quad -j_{ik}+1 \quad (n_{sa}=\boldsymbol{n}-j^{sa}+1)
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(\quad - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{s}_{j_{ik}, j^{sa}} = \left(\sum_{\boldsymbol{n}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right)$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + \ldots} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{\boldsymbol{n}+\mathbb{k}}\sum_{(n_i=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-n_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\cdots-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\cdots-n_{sa}-j^{sa})!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\cdots-\boldsymbol{n}-1)!\cdot(\cdots-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{\cdots-j_s-\cdots+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}-\boldsymbol{l_{sa}}-\cdots)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\cdots-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq\cdots<n\wedge\boldsymbol{l_s}>\cdots\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}-\cdots j_{sa}-\boldsymbol{n}-\cdots\boldsymbol{l_{sa}}\wedge$

$2\leq\cdots\leq j_{ik}-j_{sa}^{ik}+\cdots\wedge j_s+j_{sa}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-\cdots j_{sa}^{ik}\leq j^{sa}\leq\cdots+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-\cdots j_{sa}^{ik}+1=\cdots\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<\cdots\boldsymbol{l}=\mathbb{k}>0\wedge$

$\cdots<j^{i}\cdots1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-1)}\ \sum_{(j_s=j_{ik}-\mathbb{k}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\ \sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - \quad)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{i} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_s)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_s}-s)!}{(D+j^{sa}-\boldsymbol{l_s}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+\boldsymbol{l_s}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{ik}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}-\mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 1 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}\right.$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} -)!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(+ j_{sa} - - s)!}{(D + j^{sa} - \boldsymbol{n} -)! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\ \sum_{j_{sa}=j_{ik}+j_{sa}-j_s}^{}$$

$$\sum_{}^{n}\ \sum_{=\boldsymbol{n}+\mathbb{k}\ (n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{j_s-j_{ik}-\mathbb{k}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\ \sum_{}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\ -j_{ik}+1\ \ (n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{i}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+\cdots-D-j_{sa}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)} \frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=\boldsymbol{l}+\boldsymbol{n}-D)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(\boldsymbol{l_{sa}}-\boldsymbol{l}+}$$

$$\sum_{n_i=}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_s-1)!}{(\quad)!\cdot(n_i-\quad-j_s+1)!}\cdot$$

$$\frac{(n_{is}-\quad-\mathbb{k}_1-\quad)!}{(j_{ik}-j_s-\quad)!\cdot(n_{is}-\quad-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(\quad-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{sa}^{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j^{sa}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_s^{ik}=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+$ $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1$ $-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z\geq 2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{j_s=\boldsymbol{l_{ik}}+\mathbb{k}_2-j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j^{sa}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{\left(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2\right)}\sum_{\left(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1\right)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )}\sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{\left(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1\right)}^{\left(n_i-j_s+1\right)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{\left(n_{sa}=\boldsymbol{n}-j^{sa}+1\right)}^{\left(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2\right)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\left.\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot\right)$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)} \sum_{j_{ik} = j_s + j_{sa} - 1}^{} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} -}^{(\boldsymbol{l_{sa}} - 1)} \right.$$

$$\sum_{=\boldsymbol{n} + \mathbb{k}\ (n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$n_{ik} = \boldsymbol{n} + \quad - j_{ik} + 1 \quad (n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}} = \left(\sum_{k=\boldsymbol{n}+\mathbb{k}_2} \sum_{\boldsymbol{l_{sa}}+j_{sa}^{ik}-1}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{i\mathbb{k}} - 1)!}{(j_s - 2)! \cdot (\quad - j_s + 1)!} \cdot$$

$$\frac{n_{is} - n_{ik} + \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_{s} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{s} - \boldsymbol{l_{sa}} - s)}{(D + j^{sa} - \quad - \boldsymbol{l_{sa}})! \quad + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l}$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j \quad j_{sa}^{ik} - 1 \leq j_{ik} \quad j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} \quad s \wedge$

$\boldsymbol{l_{ik}} - \quad + 1 > \boldsymbol{l_s} \quad \boldsymbol{a} + j_{sa}^{ik} - j_{sa} \quad \boldsymbol{l_{ik}} \wedge$

$D \quad \boldsymbol{n} < n \wedge \quad = \mathbb{k} > 0$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \quad < j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \quad \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa} \quad \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_2 \quad = \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \right.$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\quad)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (j^{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{n} + j_{sa} - j^{sa} - \boldsymbol{l} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=\boldsymbol{l_s}+}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum^{(\quad)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} \ldots)} \sum_{(\ldots \boldsymbol{sa} + \boldsymbol{n} - D - j_{sa} + 1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{\boldsymbol{n}+\mathbb{k}}^{n_i}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}}^{(n_i}$$

$$\sum_{n_{ik}=}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(j^{sa}=}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_{ik} - j_s - \boldsymbol{l} - 1)!}{(j_{ik} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s > 1 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \Bigg(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_s}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+}$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}\,(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

GÜLDÜNYA

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\sum_{j_{sa}=\cdots}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j} = \left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\left.\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\right)\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-(}^{(}\sum_{(j^{sa}=j_{ik}+}^{)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-}$$

$$n_{is}-j_{ik}-\mathbb{k}_1+\qquad j^{sa}-\mathbb{k}_2)$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-\quad)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}\quad j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\quad)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\quad-n_{sa}-j^{sa})!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{(\quad-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{(\quad+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \quad < n \wedge \boldsymbol{l_s} > D \quad \boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\quad-\boldsymbol{l_{sa}}+\quad \leq \boldsymbol{l} \leq D \quad \boldsymbol{n}+1 \wedge$

$2 \leq \quad \leq j_{ik}-j_{sa}^{ik}+\quad \wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-\quad^{ik} \leq j^{sa} \leq \quad +j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-\quad^{ik}+1 > \quad \boldsymbol{sa}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < \quad \boldsymbol{l}=\mathbb{k}>0 \wedge$

$\quad < j^i \quad 1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik}_{sa})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i-j_s+1)}_{(n_{is}=\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}}^{(\ )}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j^{ik}_{sa} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j^{ik}_{sa} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$j_{ik} > j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}} \qquad (
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(} \qquad (n_i-j_s+1)
$$

$$
\sum_{} \qquad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+} \qquad \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{\quad} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \quad s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_{ik} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-\mathbb{k}_1-j_{sa}^{ik}=j_{sa}^{ik}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$s>4\wedge\boldsymbol{s}=\mathbb{k}_1+\mathbb{k}\wedge$$

$$\mathbb{k}_2:\mathbb{k}_2\geq 2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2) \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k} - 1)!}{(j_{ik} - j_s - 1 + j_s - n - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n - n_{sa} - j}{(j^{sa} - j - 1)! \cdot (+ j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad \boldsymbol{l_s} \wedge \boldsymbol{l_s} \quad j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \quad \boldsymbol{n} \quad n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

GULDUNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l}}^{(\ \ )}
$$

$$
(\boldsymbol{l_{ik}} + j_{sa} - \quad + 1)
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \ \sum \quad + j_{sa} - \quad - j_{sa}^{ik})
$$

$$
(n_i - j_s
$$

$$
\sum \quad \sum_{= \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} + \quad j_{ik} - \mathbb{k}_1 \quad \quad - \mathbb{k}_2)
$$

$$
\sum \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(\quad - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \quad - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$(D \geq \boldsymbol{n} \quad \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz = \sum_{j_{ik}, j} \sum_{k} \sum_{(\boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \ldots - j_{sa}^{ik} - D - 1}^{j^{sa} + j_{sa}^{ik} \ldots} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}}}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{\mathbb{k}=\boldsymbol{n}+\mathbb{k}}\sum_{(n_i=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} - j_{sa}^{ik} + 1)} 1
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 2)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j^{ik}_{sa}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_{sa}}+j_{sa}-j_{sa} \wedge \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}:\{\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=\mathbb{k}_1+\mathbb{k} \wedge$

$\mathbb{k}_2 \geq 2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}-D-1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - j_{ik})}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa} + 1 \wedge j_s + j_{sa}^{ik} - \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \boldsymbol{l_s} > \boldsymbol{l_s} \wedge \boldsymbol{l_s} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D > n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\{, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{i\mathbb{k}} - 1)!}{(j_s - 2)! \cdot (n_{i\mathbb{k}} - j_s + 1)!} \cdot
$$

$$
\frac{n_{is} - n_{ik} + \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \boldsymbol{l} + 1) \cdot (\quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - \quad)}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}) \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik}$ $\leq j_{ik} \leq$ $^{a} + j_{sa}^{ik} - j$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}$ $_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik}$ $= \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}$ $j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq$ $< n \wedge \boldsymbol{l_s} >$ $- \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik}$ $^{ik} + 1 \wedge$ $+ j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

j_{ik} $j_{sa} - j_{sa}^{ik} \leq j$ $\leq \boldsymbol{n} + j_{s}$ $\wedge$

$_{ik} - j_{sa}^{ik}$ $1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}$ $j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq$ $< n \wedge I$ $0 \wedge$

$j_{sa} \leq j_{sa}^{i}$ $\wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s}$ $_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GULDUNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-n_{ik}-\mathbb{k}_2)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{ik} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\Big) \wedge
$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}_{ik}=\boldsymbol{l}} \sum_{(j_s=j_{ik}+\boldsymbol{l}_s-\boldsymbol{l}_{ik})}^{(\ )}
$$

$$
\sum_{\boldsymbol{l}_{ik}=\boldsymbol{l}_{ik}+\boldsymbol{n}-D}^{\boldsymbol{l}_{ik}+1} \sum_{(\boldsymbol{l}_{sa}=j_{ik}+\boldsymbol{l}_{sa}-\boldsymbol{l}_{ik})}
$$

$$
\sum_{\boldsymbol{n}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\ \ j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\cdots_{ik}, j^{sa}} - \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\boldsymbol{l_{sa}} + \boldsymbol{n} + j_s^{i} - D - j_{sa} - 1 \quad (\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{\boldsymbol{k}=\boldsymbol{l}} \sum_{(j_s = j_{ik} - \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \quad 001$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \quad \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\prod_{n_i=\boldsymbol{n}}^{n} \quad \sum_{(\quad=\boldsymbol{n}+}^{(\quad j_s+1)}
$$

$$
\sum_{\quad}^{n_{is}+j_s-j_{ik}} \quad \sum_{(\quad=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j\quad)}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}\quad j_{ik}-\mathbb{k}_1-1)!}{(j_{ik}\quad j_s-1)!\cdot(n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n\quad n_{sa}-1)!}{\quad a-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \quad \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

GÜLDÜMYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_{ik} - \boldsymbol{l} - 1)!}{(j_{ik} - j_s - \boldsymbol{l}_{ik} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j_{sa}^{ik} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > j_{ik} - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > j_{ik} - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

GUDUMYA

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j_{sa} = j_{ik} + \boldsymbol{l_{ik}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s)}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik}}^{n_{is} + j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{sa} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + \cdots} \sum_{(\cdots \boldsymbol{l_s} + \boldsymbol{n} - D)}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \quad \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} \cdots)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \quad \sum_{(n_{is} \cdots - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \cdots - j_{ik} + 1}^{\cdots + j_s - j_{ik}} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{\cdots - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \cdots_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \quad \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \quad \sum_{j_{ik} = \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l} + 1}^{(\ )} \quad \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\quad-n_{sa}-j^{sa})!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\big((D\geq\quad<n\wedge\boldsymbol{l_s}>\quad-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-\quad+1\wedge j_s+\quad-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+\quad-j_{sa}^{ik}\leq j^{sa}\quad\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\quad>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+\quad j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\quad<n\wedge\boldsymbol{l_s}>\quad-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - \cdots}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - \cdots}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{\cdots - j_{ik} + \cdots - \boldsymbol{l_{ik}})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k} \cdots}^{(n_i - j_s} \sum_{\cdots = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
\sum_{n_{is} + \cdots - j_{ik} - \mathbb{k}_1 \cdots}^{\cdots} \sum_{\cdots - j^{sa} - \mathbb{k}_2)}
$$

$$
\sum_{\cdots \boldsymbol{n} + \mathbb{k}_2 - j_{ik} \cdots}^{\cdots} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \cdots)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(\cdots - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \cdots j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(\cdots - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}
$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\ \ -j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i \quad -1)}{(j_s-2)!\cdot(n_i-n_{is} \quad +1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_{\ }-1)!}{(j_{ik}-j_s-1)!\cdot(\ \ +j_s-n_{\ }-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{\ }-n_{sa}-1)!}{(j^{sa}-j_{\ }-1)!\cdot(\ \ +j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}\ \ -1)!}{(n_{sa}+j_{\ }-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_{\ }-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D \quad \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \quad -\boldsymbol{n}+1 \wedge$$

$$2 \le j_s \le j_{ik}-j_{sa}^{ik}+1 \ \ j_s+j_{sa}^{ik}-1 \le j_{ik} \le j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik} \ \ j_{sa}-j_{sa}^{ik} \le j^{\ } \le \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\ \ =\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$$

$$\ \ \ n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$$

$$2 \le j_s \le j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \le j_{ik} \le j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\Big) \wedge$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} - j_{sa}+2)} \sum_{\boldsymbol{=l_{sa}+n-}}^{(j_{sa}+1)} \sum_{=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{} \sum_{=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{} \sum_{}^{(j_s+1)} \sum_{+\mathbb{k}}^{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)} \sum_{n_{is}}^{} \sum_{-j_{ik}-\mathbb{k}_1}^{} \sum_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{} \sum_{n_{ik}=\boldsymbol{n}}^{} \sum_{-j_{ik}+1}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(\quad - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\Big) \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_s, j_{ik},} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge \ldots - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \ldots\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \ldots 2 \wedge \mathbb{k} = \mathbb{k}_1 \ldots \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s \geq 4 \wedge \boldsymbol{s} = \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-1)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+\boldsymbol{l_{sa}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \right.}$$

$$\frac{(D + j_{sa} -}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} =$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} +$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s}$

D

j_{sa}

$\{j_{sa}^{s}, \cdots$

$s > 4 \wedge \boldsymbol{s} = s$

$\mathbb{k}_z \cdot z = z$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ \ )}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\quad-n_{sa}-j^{sa})!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+\quad-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+\quad\wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq \quad a+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-\quad^{ik} \leq j^{sa}\quad \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\quad\wedge \boldsymbol{l_{sa}}+\quad-j_s \leq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D \geq \quad< n \wedge I=\mathbb{k}>\quad\wedge$

$j_{sa} \leq j_{sa}^{i}-\quad\wedge j_{sa}^{ik}=j_s\quad-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j\quad,\mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=\quad+\mathbb{k} \wedge$

$\quad\wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s \quad + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik} \quad < j_{ik} \leq \quad a + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} \quad j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \quad < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1 \wedge$

$2 \quad j_s \leq j_{ik} \quad ^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} - j_{sa}^{ik} \leq j \quad \leq \boldsymbol{n} + j_{sa} \quad \wedge$

$\quad - j_{sa}^{ik} \quad 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \geq \quad < n \wedge I \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s} \quad _1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GULDUNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} + \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}-1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}-j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1+1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{sa}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \quad 1 \leq j_{ik} \leq \quad sa + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad sa - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad a = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad > 0 \wedge$

$j \quad \leq j_{sa}^{i} - 1 \quad sa = j_{sa} \quad 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ \quad , \cdots, \mathbb{k}_1, j_{sa}^{ik}, \quad j_{sa}, \cdots, j \quad \}$

$\quad > 4 \wedge \quad = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} \quad \mathbb{k}_1 + \quad 2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\quad)}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \wedge \boldsymbol{l_{sa}} + j_{sa} - j_s - \boldsymbol{l_{ik}} \wedge$

$D \geq \leq n \wedge I = \mathbb{k} \wedge$

$j_{sa} \leq j_{sa}^{i} - \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j \quad \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = + \mathbb{k} \wedge$

$\wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}$$

GULDUNYA

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_{} - 1)!}{(j_{ik} - j_s - 1 + j_s - n_{} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{} - n_{sa} - j_{}}{(j^{sa} - j_{} - 1)! \cdot (n_{} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n_{} \boldsymbol{l}_{} > D_{} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa} - 1 \wedge j_s - j_{sa}^{ik} - \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{} - j_{sa}^{ik} \leq j^{sa} \leq + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + = \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D > n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\{, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-n_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{is} - \mathbb{k} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} + \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \mathbb{k} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} \leq j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \mathbb{k} = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n}}^{n} \sum_{(n_i = \boldsymbol{n} + j_s + 1)}^{(n_i + j_s + 1)}
$$

$$
\sum_{j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{ik} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - j_s)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge j_s > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} - \boldsymbol{l_{sa}} - D - 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{\boldsymbol{n} = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_{is} + 1)}^{(n_i - j_{is} + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(j_{sa} = j_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\boldsymbol{l_{sa}} + j_{ik} - j_{sa} - \boldsymbol{l_{sa}} + 1)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D > \boldsymbol{l} < \boldsymbol{n} \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l}}^{(\ \ )}
$$

$$
(\boldsymbol{l_{ik}} + j_{sa} \quad - j_{sa}^{ik} + 1)
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \quad \sum_{+\boldsymbol{n} + j_s \quad (D-1)}
$$

$$
(n_i - j_s
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k} \quad} \quad \sum_{= \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} \quad j_{ik} - \mathbb{k}_1 \quad ;^{sa} - \mathbb{k}_2)
$$

$$
\sum_{\boldsymbol{n} + \mathbb{k}_2 - j_{ik}} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(\quad n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \quad j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \quad \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}+}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{}^{(n_i-j_s+1)}
$$

$$
\sum_{}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + \quad s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{i} \quad \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\boldsymbol{l_s} + j_{sa}^{ik} - \quad (\quad)
$$

$$
\sum_{j_{ik} = \boldsymbol{l}} \quad \sum_{j_{ik} - D - j_{sa} \quad (\quad = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}
$$

$$
(\quad j_s + 1)
$$

$$
\sum_{n_{i} \quad + \mathbb{k}} \quad \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} + \quad j_{ik} - \mathbb{k}_1 \quad (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)
$$

$$
\sum_{n_{ik} = \boldsymbol{n} \quad - j_{ik} + 1} \quad (n_{sa} = \boldsymbol{n} - j^{sa} + 1)
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(\quad - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{\left(\ \right)} \sum_{(j_s = j_{ik} \ldots \boldsymbol{l_{ik}})}^{\left(\ \right)}
$$

$$
\sum_{j_{ik} \ldots + \boldsymbol{n} - D}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + \ldots} \sum_{\ldots \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\ldots n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s \ldots k - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} \sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_s}+j_{sa}} \sum_{D\,(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{j_s+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{sa} = j_{sa} + j_{sa} = \sum_{\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{l_{sa}} - D - 1}^{j_{sa} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j_{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} $$

$$ \sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + \mathbb{k}_1 - D - 1}^{\boldsymbol{n} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )} $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

$$ \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )} \qquad Q01$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GULDUNYA

$\Bbbk_z: z = 2 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+j_s}^{n} \sum_{(n_{is}=\boldsymbol{n}+j_s+1)}^{(\boldsymbol{n}-j_s+1)}
$$

$$
\sum_{j_{ik}=j_s+1}^{n_{is}+j_s-j_{ik}-\Bbbk_1} \sum_{(j^{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \Bbbk_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} - j_{sa} + 2)}
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_{sa} + 1)}^{(n_i - j_{sa} + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_s - j_{ik} + 1} \sum_{(n_{sa} = \boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\boldsymbol{n} + j_s - j_{ik} - \mathbb{k}_1 + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-\boldsymbol{l_{ik}}+}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}} \sum_{=j_{ik}+\boldsymbol{-l_{ik}})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
n_{is} - j_{ik} - \mathbb{k}_1 \quad j^{sa} - \mathbb{k}_2)
$$

$$
\sum_{=\boldsymbol{n}+\mathbb{k}_2-j} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s -)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(- j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} - j_{sa} \ldots)} \sum_{(j \ldots \boldsymbol{l_s} + \boldsymbol{n} - D)}
$$

$$
\sum_{j_{ik} = j_s + \ldots \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} \ldots)}^{(\ldots}
$$

$$
\sum_{n_i = \boldsymbol{n} + \ldots}^{n} \sum_{\ldots - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} \ldots - j_{ik} + 1}^{n_{is} + j_s - j_{ik} \ldots \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(\ldots 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \ldots_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \leq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{n}-D)}^{(\boldsymbol{l}_s-\boldsymbol{l}-j_{sa}^{ik}+2)}
$$

$$
\sum_{\boldsymbol{l}_{ik}=j_s+\boldsymbol{l}_{ik}-\boldsymbol{l}_s} \sum_{(j_{ik}=j_{ik}+\boldsymbol{l}_{sa}-\boldsymbol{l}_{ik})}^{(\boldsymbol{l}_{ik}-j_s+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{n_{ik}=\boldsymbol{n}-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l}_s - \boldsymbol{l} - 1)!}{(\boldsymbol{l}_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l}_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l}_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l}_s > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l}_s + j_{sa} - \boldsymbol{n} - \boldsymbol{l}_{sa} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{[illegible]} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{[illegible]} = j^{sa} + j_{sa}^{ik} - [illegible]} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(j_{[illegible]} + j_{s[illegible]} - \boldsymbol{l} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{i}-1)!}{(j_s-2)!\cdot(\quad j_s+1)!}\cdot$$

$$\frac{-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\,(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\,(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_{s} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{s} - \boldsymbol{l_{sa}} - s)}{(D + j^{sa} - \quad - \boldsymbol{l_{sa}})! \quad \boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \quad \boldsymbol{n} + 1$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j \quad j_{sa}^{ik} - 1 \leq j_{ik} \quad j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} \quad s \wedge$

$\boldsymbol{l_{ik}} - \quad + 1 = \boldsymbol{l_s} \quad \boldsymbol{a} + j_{sa}^{ik} - j_{sa} \quad \boldsymbol{l_{ik}} \wedge$

$D \quad \boldsymbol{n} < n \wedge \quad = \mathbb{k} > 0$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \quad < j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \quad \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa} \quad \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_2 \quad = \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D+\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq \boldsymbol{l_s} \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 = \boldsymbol{n}+j_{sa}^{ik}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - n_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(\boldsymbol{l_{ik}}=\boldsymbol{l_{ik}}+\boldsymbol{n}-\boldsymbol{l_{sa}})}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{i}{}_{a}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} < j^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot\right)$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{\mathbb{k}}\sum_{(j_s=\mathbb{k}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})}\sum_{j_{ik}=j_{sa}^{ik}+\boldsymbol{l_{ik}}}\sum_{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)!\cdot(n_i-n_{is}}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}}{(j_{ik}-j_s-1}$$

$$\frac{(n_{ik}-n_{sa}-}{(j^{sa}-j_{ik}-1)!\cdot(}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{ik}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq$ $< n \wedge \boldsymbol{l_s} > D$ $\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_s$ $-\boldsymbol{n}-\boldsymbol{l_{sa}}$ $1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq$ $j_{ik}-j_{sa}$ $1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-$ $\leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

^{ik} $1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+j_s-j_{ik}-\mathbb{k}_1-j_{ik}+1} \sum_{(n_{ik}=\boldsymbol{n}+j_s-j_{ik}-\mathbb{k}_2+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$\boldsymbol{n} > \boldsymbol{l} \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} \quad \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1}^{(\quad)} \sum_{(\boldsymbol{l_{sa}} + \boldsymbol{n} + \quad - D - j_{sa} \quad - j_{sa}^{ik})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
\sum_{n_{is} + j_s \quad - \mathbb{k}_1}^{n_{ik} + j_{ik} - \mathbb{k}_1} \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{sa}} + \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_s)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+\boldsymbol{l_{sa}}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}+1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}+\mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{ii}\} \wedge$

$s > \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}\right.$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{k=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-}^{(\boldsymbol{l_{sa}}-1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}\ (n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{j_s-j_{ik}-}\sum_{-j_{ik}+1\ \ (n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq D-\boldsymbol{n}+1\wedge$$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{ik} = j_{sa} + j_{sa}^{ik} = \sum_{\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)} \right)$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l_{ik}}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-D-j_{sa}}\sum_{(j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\ +1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}-\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1+1)!}{(j_{ik}-j_s-1)}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{ik}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \geq 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{n} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{sa}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{is}+1)}^{(n_i-\boldsymbol{n}+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+j_{ik}-j_{ik}+1}^{j_{ik}-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j_{sa}+1)}^{(n_{sa}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le \boldsymbol{l} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{[illegible]} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - [illegible] + 1)}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - [illegible] + 2)} \right.
$$

$$
\sum_{j_{ik} = [illegible] \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} [illegible] - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + [illegible] - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\right.$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}\ldots-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+\ldots}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}\ldots-\mathbb{k}_2)}$$

$$\frac{(\ldots-n_{is}\ldots1)!}{(j_s\ldots)!\cdot(n_i\ldots+1)!}\cdot$$

$$\frac{(\ldots-n_{ik}\ldots-1)!}{(\ldots-j_s-1)!\cdot(\ldots+j_s\ldots-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}\ldots n_{sa}-1)!}{(j^{sa}\ldots-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-n_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}$ 1 $\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l}$ $D-\boldsymbol{n}+1$

$2 \leq j_{ik} \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1$ $j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}$ $j^{sa} \leq \boldsymbol{n}$ $j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}$ $_{sa}^{ik}+1=\boldsymbol{l_s} \wedge$ $+j_{sa}^{ik}$ $_{sa} > \boldsymbol{l_{ik}} \wedge$

$\geq \boldsymbol{n} <$ $\wedge I=\mathbb{k}>$ $\wedge$

$j_{sa} \leq j$ $-1 \wedge$ $_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}^{s}, \cdots,$ $j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$> 4 \wedge \boldsymbol{s}$ $s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2) \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - j_{ik} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \quad < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \quad - \boldsymbol{l_{sa}} \wedge$

$2 \leq \quad < j_{ik} - j_{sa} - 2 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\quad - j^{ik} - 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\quad)} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}
$$

$$
\sum^{(n_i-\quad+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_{is}}
$$

$$
\sum_{j_{ik}=j_{ik}-\mathbb{k}_1}^{\quad} \sum_{\left(j^{sa}=j_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2\right)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}-j_{ik}+1}^{\quad} \sum_{(n_{sa}=\quad^{sa}+1)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(n_{ik}-j_s-1)!\cdot(n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1\right)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\quad-n_{sa}-j^{sa})!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{(\quad-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}\quad\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}\quad\boldsymbol{l_{sa}}-j\quad\boldsymbol{l}\quad(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\ \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-{}_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}$$

$$(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})\cdot(\boldsymbol{n}+j_{sa}-j$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\geq j_{ik}\leq j^{sa}$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1$$

$$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$$

$$s$$

$$\mathbb{k}_z:$$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\left.\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\right)$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{n}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_s}^{(}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}$$

$$\sum_{}^{n}\ \sum_{=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{}^{j_s-j_{ik}-\mathbb{k}}\ \sum_{n_{ik}=\boldsymbol{n}+}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\ \sum_{}^{-j_{ik}+1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{i}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{[illegible]} = \left(\sum_{[illegible]} \sum_{(j_s [illegible] - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} [illegible]} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})}\right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{ik})}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-j_{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}+j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{sa}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge j_{sa}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$z > 4 \wedge \boldsymbol{s} \geq s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{\left(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}\right)}^{\left(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_{ik}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{l} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} + j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - \ \ + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \ \ + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\sum_{(n_{sa} = \ \ - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_s-\boldsymbol{l}+1)}\ \sum_{(j_s+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - \quad)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{i} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\quad)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_s}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_s+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\,(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_s}-s)!}{(D+j^{sa}-\quad)!\cdot(\boldsymbol{n}+\quad-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}\ j^{sa}+j_{sa}^{ik}-\ \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+\ \ s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+\ -j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq \ -1 \wedge j_{sa}^{ik}=\ -1 \wedge j_{sa}^{s} < \ \ 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}\ \mathbb{k}_2, j_{sa}, \ \ j_{sa}^{i}\} \wedge$

$s > \ \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2\ \mathbb{k} = \mathbb{k}_1+\mathbb{k}\ \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ \ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} -)!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(+ j_{sa} - - s)!}{(D + j^{sa} - \boldsymbol{n} -)! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_i}}$$

$$\sum_{:=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}-\mathbb{k}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{j_s-j_{ik}-1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j_{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge \ldots - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \ldots\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z \ldots 2 \wedge \mathbb{k} = \mathbb{k}_1 \ldots \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + \quad - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad \wedge \boldsymbol{l_i} \quad - s = \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge \quad = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S} \quad _1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \quad _a, \cdots, j_{sa}^{i}\} \wedge$

$s \quad 4 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_z: \quad = 2 \wedge \mathbb{k} = \mathbb{k}_1 \quad \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \quad \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+j_{sa}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \boldsymbol{l})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}) \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = \mathbb{k} > 0$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$

$\mathbb{k} \in \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s - \mathbb{k} \wedge$

$\mathbb{k}_z, z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-j^{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}+\boldsymbol{l})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(n_{sa}+j_{sa}^{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_s}-s)!}{(D+j^{sa}-\boldsymbol{l_{ik}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i} \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}:\{j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=\mathbb{k}_1+\mathbb{k} \wedge$

$\mathbb{k}_2 \geq 2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

GULDUNYA

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}-D-1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}-1)}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D$$

$D \geq \boldsymbol{n} < n$ $> D -$ $+ 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s$ $\leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s$ $- j_{sa}^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} +$ $\boldsymbol{l_s} \wedge \boldsymbol{l_s}$ $- j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

D $\boldsymbol{l}$ $n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} -$ $\wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}$: $\{$ $-1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (\quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad n_{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{s} - \mathbb{k}_2 - 1)!}{a - j_{ik} \quad 1)! \cdot (n_{ik} \quad j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s \quad + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik} \quad < j_{ik} \leq \quad a + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} \quad j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \quad < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1 \wedge$

$2 \quad j_s \leq j_{ik} \quad ^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} - j_{sa}^{ik} \leq j \quad \leq \boldsymbol{n} + j_{sa} \quad \wedge$

$\quad - j_{sa}^{ik} \quad 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \geq \quad < n \wedge I \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s}, \mathbb{k} \quad _{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GULDUNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{ik}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}<\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}<\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\Big)\wedge$$

$$\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}\colon\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$$

$$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{+1}^{n_{is}+j_s-j_{ik}} \sum_{(=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{- n - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

GÜLDÜMYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{\quad+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}>D-\boldsymbol{n}+$$

$$2\leq j_s\leq \quad-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq \boldsymbol{n}<\quad\wedge \boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\Big)\wedge$$

$$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = [illegible] - j_{sa}^{ik} + 1)}^{([illegible])}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - [illegible]}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - [illegible])}^{([illegible])}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = [illegible] - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + [illegible] - j_{ik} + 1}^{[illegible] + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{([illegible]_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{([illegible]^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

GÜLDÜNYA

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots} = \sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l}+1}^{\boldsymbol{l}+\boldsymbol{n}-D} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - \quad) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \ \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(\quad+j_{sa}^{ik}-\quad-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\quad-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \quad \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > 0\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s} - \mathbb{k}_1, j_{sa}^{ik}, \cdots, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s \geq 4 \wedge \boldsymbol{s} = \mathbb{k} \wedge$

$\mathbb{k}_z : \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+\cdots-1 \leq j_{ik}+j_{sa}^{ik}-\cdots \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+\cdots-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_{sa}}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k}\cdots 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge \cdots < j_{sa}\cdots \wedge j_{sa}^{s}-\cdots-j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}\cdots \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s}\cdots s+\mathbb{k} \wedge$

$\mathbb{k}_z: z\cdots 2 \wedge \mathbb{k}=\cdots \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j^{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - \boldsymbol{l} - 1)!}{(\boldsymbol{l} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l} + \boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

GŪLDŪNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-$$

$$\left((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge\right.$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j^{sa}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_i}\wedge\boldsymbol{l_i}+j_{sa}-s\leq\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j^{sa}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_{ik}}+j_{sa}-s>\boldsymbol{l_{sa}})\Big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge\mathbb{k}>0$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}\leq j_{sa}-1\wedge j_{sa}=j_{sa}^{ik}-1\wedge$$

$$\mathbb{k}\in\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$$

$$s>4\wedge\boldsymbol{s}=s$$

$$\mathbb{k}_z\in z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j^{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_{ik}} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+(\boldsymbol{n}+j_{sa}-$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j^{sa} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_i} \wedge \boldsymbol{l_i}+j_{sa}-s \leq \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j^{sa} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_{ik}}+j_{sa}-s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge \mathbb{k} > 0$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}=j_{sa}^{ik}-1 \wedge$

$\mathbb{k} \in \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s$

$\mathbb{k}_z \cdot z = z \cdot \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - \boldsymbol{l} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}-j_{sa})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_{ik}+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge l-\boldsymbol{l_s}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$$

$$\{j_s,\cdots,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$$

$$\mathbb{k}_z\colon z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}
$$

$$
\frac{(n_i - 1)}{(j_s - 2) \cdot (n_i - n_{is} + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s) \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - j_{ik})}{(j^{sa} - j_{ik} - 1) \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge
$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}_{sa}}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 2)} \sum_{(\boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 2)}
$$

$$
\sum_{j_{sa}^{ik} + j_{sa}^{ik} - 1}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 2)} \sum_{(j_{sa}^{ik} + j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 2)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_{is} + j_{ik} - j_{sa} - \mathbb{k}_1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} - \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\Big) \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$
{}_{fz}S_{j_s, j_{ik}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-$$

$$(\boldsymbol{l_{ik}}-$$

$$\sum_{k=\boldsymbol{l}}\ \sum$$

$$(\boldsymbol{l_{sa}}$$

$$\sum\ \sum$$

$$\sum\ (n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)$$

$$n_{is}+$$

$$\sum\ (n_{sa}=\boldsymbol{n}-j^{sa}+1)$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\left((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge\right.$$

GÜLDÜNYA

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\Big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{\dots,j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l_{sa}}}^{\boldsymbol{l_s}-\boldsymbol{l}+1}\sum_{\boldsymbol{l_{sa}}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_{sa}-j_{sa}^{ik}-1}^{\boldsymbol{l_{sa}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}-j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\boldsymbol{n}}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

GÜLDÜNYA

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}}-\boldsymbol{l_i}+j_{sa}-s \leq \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{$ $-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}-1)!\cdot(j_{ik}-j_s-j_{s}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\ \sum_{\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\boldsymbol{l_{sa}}+j_{sa}^{ik}\ j_{sa}+1 \qquad \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$+j_{sa}^{ik}-1$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{\left(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}\right)!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$

$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}-j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z\geq 2\wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{n} - D - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\big)\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1$

$\boldsymbol{s}:\{j_{sa}^{s}=\mathbb{k}_1,j_{sa}^{ik},\cdots,j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$s\geq 4\wedge\boldsymbol{s}=\mathbb{k}\wedge$

$\mathbb{k}_z:=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{sa}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=l}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+\right.}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\right.-j_{sa})!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}\quad)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{sa}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s\leq\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}\leq\ \wedge j_{sa}^{s}=j_{sa}^{ik}\ 1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}$

$\mathbb{k}\ z=2\wedge\mathbb{k}\ \mathbb{k}_1+\mathbb{k}\ \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_{ik} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_s} + j_{sa} - \boldsymbol{l} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=$ $_{a}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})(}+$$

$$\sum_{}^{(}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(}\sum_{=\boldsymbol{l_s}+j_{sa}^{ik}-}^{-\boldsymbol{l}+1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$S_{\dots,j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+[illegible]\right)}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-[illegible]-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}[illegible]}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})![illegible]+j_{sa}-[illegible]s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{[illegible]}\ \sum_{(j_s[illegible]j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=[illegible]j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-[illegible]}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$S_{\cdots,j^{sa}}=\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}\cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{i}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)(j_s-2)!}$$

$$\frac{(D+j_{sa}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j$ $\leq j^{sa} + j_{sa}$ j_{sa}

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - \wedge j_{sa}^{s} = j_{sa}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots,$ $\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s +$ $\wedge$

$\mathbb{k}_2 : z = 2 \wedge$ $= \mathbb{k}_1 +$ $\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GULDUNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j \quad - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j \quad = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S} \quad _1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \quad _a, \cdots, j_{sa}^{i}\} \wedge$

$s \quad 4 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_z: \quad = 2 \wedge \mathbb{k} = \mathbb{k}_1 \quad \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa} - D - 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - 1 \quad \leq j \quad + j_{sa}^{ik} - \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + \quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j \quad = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge \quad < j_{sa} \quad \wedge j_{sa}^{s} \quad _{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{s} \quad \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, \quad , \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \quad 2 \wedge \mathbb{k} = \quad \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}-D-1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+\quad-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+\quad\wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq \quad a+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-\quad^{ik} \leq j^{sa}\quad \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\quad \wedge \boldsymbol{l_{sa}}+\quad-j_s \quad \boldsymbol{l_{ik}} \wedge$

$D \geq \quad < n \wedge I=\mathbb{k}>\quad \wedge$

$j_{sa} \leq j_{sa}^{i}-\quad \wedge j_{sa}^{ik}<j_s\quad-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j\quad, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=\quad+\mathbb{k} \wedge$

$\quad \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_s-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{l} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}-\mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{}}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} + 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \mathbb{k} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \mathbb{k} = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_i = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{is} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \geq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{\left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}\right)}^{(\ )}
$$

$$
\sum^{(n_i - \quad - 1)}
$$

$$
n_i \quad \mathbb{k} \left(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s \right)
$$

$$
j_{ik} - \mathbb{k}_1 \quad \left(\quad + j_{ik} - j^{sa} - \mathbb{k}_2 \right)
$$

$$
n_{ik} = \boldsymbol{n} + \quad j_{ik} + 1 \quad (n_{sa} \quad {}^{a} + 1)
$$

$$
\frac{(n_i \quad n_{is} - 1)!}{(j_s \quad 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n \quad - n_{ik} - 1)!}{(j_{ik} \quad \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{i} \quad - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \quad \boldsymbol{n} < \quad \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + \ldots}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(\ldots + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{\ldots = \boldsymbol{n} + \mathbb{k}} \sum_{(\ldots = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + \ldots)}
$$

$$
\sum_{n_{is} + \ldots + \mathbb{k}_2 - j_{ik}}^{n_{is} + \ldots - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + \ldots - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \ldots)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(\ldots_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\ldots_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < \ldots \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l}_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - \boldsymbol{l}_{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = n_i - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_{ik} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}_{sa}}^{(\boldsymbol{l}_{ik} - j_{sa}^{ik} + 2)} \sum_{\boldsymbol{l}_{sa} + \boldsymbol{n} - \boldsymbol{l}_{sa} - j_{sa} + 1)}
$$

$$
\sum_{j_{sa} + j_{sa}^{ik} - 1}^{(\boldsymbol{l}_{sa} + j_{sa}^{ik} - 1)} \sum_{(j_{sa} + j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l}_{sa} + j_{sa} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} - \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_{ik} - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - \cdots + 1)}^{(\boldsymbol{l_s} - \cdots)} \sum_{\cdots}^{(\ )} \sum_{j_{ik} \cdots + j_{sa}^{ik} - 1 \ (\cdots - j_{sa}^{ik})}^{\cdots} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{\cdots}
$$

$$
\sum_{n_{is} + j_s \cdots - \mathbb{k}_1}^{\cdots} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{\cdots}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} - 1)}
$$

$$
\sum_{j_{ik} = j_s + j_{sa} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} - 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,\ldots} \sum_{k=\ldots}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{\ldots}^{(j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=\ldots+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, \ldots, j_{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\ \ -\boldsymbol{l}-j_{sa}+2)} $$

$$ \sum_{j_{ik}=j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} $$

$$ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fz^{S}{}_{j_s,\ldots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{j^{sa}+j_{sa}^{ik}-j_{sa}-}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-}^{\ +j_{sa}-\boldsymbol{l}_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}\right.$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}\,(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{\ -j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{\ -j_{ik}+1\ \ (n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}+\boldsymbol{l_{ik}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \geq 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{n} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_{sa} + 1)}^{(n_i - j_{sa} + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_s - j_{ik} + 1}^{\boldsymbol{n} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} + j_{sa} + 1)}^{(\boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \leq \boldsymbol{l} \leq \boldsymbol{n} \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, j_{sa}^{i} \right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 2 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{\text{[illegible]}} \sum_{(j_s = j_{ik} \text{[illegible]} + 1)}^{\text{[illegible]})} \right.$$

$$\sum_{j_{ik} \text{[illegible]} + j_{sa}^{ik} - j_{sa} \text{[illegible]}}^{\text{[illegible]}} \sum_{\text{[illegible]} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \Bbbk}^{n} \sum_{(n_{is} = \boldsymbol{n} + \Bbbk - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \Bbbk_2 - j_{ik} + 1}^{n_{is} + j_s \text{[illegible]} ik - \Bbbk_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \Bbbk_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)!\cdot(n_i - n_{is} - j_s + 1)!}\cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)!\cdot(n_{is} + j_s - n_{ik} - j_{ik})!}\cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)!\cdot(n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!\cdot(\boldsymbol{n} - j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)!\cdot(j_s - 2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l} + j^{sa} - j^{sa} - \boldsymbol{l_{ik}})!\cdot\left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!}\cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})!\cdot(\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)!\cdot(n_i - n_{is} - j_s + 1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_s)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + \boldsymbol{l_{sa}} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \ldots \mathbb{k}_2, j_{sa}, \ldots i_{sa}\} \wedge$

$s > \ldots \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \ldots \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \ldots \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}-1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}-1 \wedge j_s+j_{sa}^{ik}-1 < j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} < j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} < s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

GÜLDÜNYA

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)}{(j^{sa} - j_{ik} - 1)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=l_s}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-\mathbb{k}_1}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{=l}}^{\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)} \quad j_{ik} = \boldsymbol{l_{ik}} + \quad D \quad (j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - \right.$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}\,(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(j_i - j_s + 1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\quad - j_{ik}+1 \quad (n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_s - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \quad - \boldsymbol{l_{sa}})! \quad \boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \quad \boldsymbol{n} + 1$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j \quad j_{sa}^{ik} - 1 \leq j_{ik} \quad j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} \quad s \wedge$

$\boldsymbol{l_{ik}} - \quad + 1 > \boldsymbol{l_s} \quad \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \quad \boldsymbol{l_{ik}} \wedge$

$D \quad \boldsymbol{n} < n \wedge \quad = \mathbb{k} > 0$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \quad = j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \mathbb{k} \quad _{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa} \quad \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_2 \quad = \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_s}+\boldsymbol{l_{ik}}-j_{sa}^{ik})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq \boldsymbol{n} + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \leq j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = n_{is} + j_s - j_{ik}}^{n_{is} + j_s - j_{ik} + 1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} + j_s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + j_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

GÜLDÜMYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{sa}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{sa}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{ik}+1)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} -$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{(\ )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \right.$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\Bigg)+$$

$$\left(\sum_{(j_{sa}^{ik}+1)}^{(\quad)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-j_{sa}}^{j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}$$

$$\frac{(n_i$$

$$\frac{(n_{ik}$$

$$\frac{(n_{ik}-\mathbb{k}_2-1)!}{(j^{sa}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} \quad \boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{\quad}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq \quad -j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} +}^{(\ \ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \quad \sum_{j_{sa} = \boldsymbol{l_{sa}} \boldsymbol{n} - D)}^{(\ \ - \boldsymbol{l} + 1)}
$$

$$
\sum_{j_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s +} \quad \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{}
$$

$$
n_{is} + \quad j_{ik} - \mathbb{k}_1 \quad (\quad {}^{sa} - \mathbb{k}_2)
$$

$$
\sum_{n_{i} + \mathbb{k}_2 - j_{ik}}^{} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(\quad_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\quad_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜMYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.$$

$$\boldsymbol{l_s} \cdots - \boldsymbol{l}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} \cdots + j_{sa}^{ik} - D \cdots} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-j_s-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} < D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$n > 4 \wedge \boldsymbol{s} > s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

GUDUMYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} \quad + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} + j_s \quad n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} \quad \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} \quad n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} \quad 1)!}{(n_{sa} + j_{sa} \quad \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j \quad \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \quad < n \wedge \boldsymbol{l_s} > D \quad \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D \quad \boldsymbol{l_s} + j_{sa} \quad - \boldsymbol{l_{sa}} \wedge$

$2 \leq \quad j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\quad 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{[illegible]} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s [illegible])}^{(n_i - [illegible] + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + [illegible] - j_{ik} + 1}^{j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} [illegible] + 1)}^{([illegible] + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}^{(j_{ik} - j_{sa}^{ik} + 1)} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-j^{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa}^{ik})!\cdot(j^{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(j_{sa}-j^{sa}-s)!}+$$

$$\sum_{(j_s=\boldsymbol{l_s}-\boldsymbol{l}+1\,(D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_{ik}}-\boldsymbol{l}+1}^{\boldsymbol{l}+1}\sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(\boldsymbol{l}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{n}-j_{sa})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{is}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} \quad)} \sum_{(j_s \quad +\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{sa}}+1)}
$$

$$
\sum_{=j_s+j_{sa}^{ik}-}^{} \sum_{isa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{j_{ik}=j_s+j_{sa}^{ik}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=}^{(n_i-j_s+1}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}}^{(n_{ik}+j_{ik}^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_s-1)!}{(\quad)!\cdot(n_i-\quad-j_s+1)!}\cdot$$

$$\frac{(\quad-n_{ik}-\quad)!}{(j_{ik}-\quad-1)!\cdot(\quad+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-\quad-\mathbb{k}_2-1)!}{(j^{sa}-\quad-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\quad_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \quad D \quad \boldsymbol{n}+1 \wedge$

$D \quad \boldsymbol{l_s}+\quad -\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq \quad -j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=n_{is}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-n_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n}$ $\wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$2 \leq j$ $\leq j_{ik} - j_{sa}^{ik}$ $\wedge j_s + j_{sa}^{ik} - 1$ $j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik}$ $j^{sa} \leq \boldsymbol{n}$ $j_{sa} - s \wedge$

$\boldsymbol{l_{ik}}$ $j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge$ $+ j_{sa}^{ik}$ $_{sa} > \boldsymbol{l_{ik}} \wedge$

$\geq \boldsymbol{n} <$ $\wedge I = \mathbb{k} >$ $\wedge$

$j_{sa} \leq j_{sa}^{i}$ $- 1 \wedge$ $_{sa}^{ik}$ $- 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$> 4 \wedge \boldsymbol{s}$ $s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}.$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - n_{ik} - j_{ik})!}.$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}.$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{j_{ik}=j_s+j_{sa}+1}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{\dots, j_{ik}, j^{sa}} = \Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\ )} \left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}\right)$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_k=\boldsymbol{l_{sa}}+\boldsymbol{n}-}^{}{}_{j_{sa}+1)}\right.$$

$$\sum_{j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}_{}+1}\ \sum_{(}^{}{}_{=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_{}+\mathbb{k}}^{}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\ \ j_s+1)}$$

$$n_{is}+\ \ j_{ik}-\mathbb{k}_1\quad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)$$

$$\sum_{n_{ik}=\boldsymbol{n}_{}-j_{ik}+1}^{}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_{sa} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{l} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - \boldsymbol{l_s} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_{i} = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_{s} + 1)}^{(n_i - \boldsymbol{n} + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_i - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{j_{ik} = j_s + j_{sa}^{ik}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(j_{ik} - j_s - \boldsymbol{l} - 1)!}{(j_{ik} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - \boldsymbol{l} - \boldsymbol{l})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(D+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \right.$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_t$$

$$\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}$$

$$\sum_{j_{ik}-$$

$$\sum_{(\boldsymbol{l_s}$$

$$\sum_{a}+j_{sa}^{ik}-j_{sa}$$

$$\sum_{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}$$

$$\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{s-j_{ik}-\mathbb{k}_1}$$

$$\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-1)!}{(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-1)!}{(j_{ik}-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-\mathbb{k}_2-1)!}{(j^{sa}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} \quad \boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa} \quad \boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq \quad -j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(}^{(\boldsymbol{l_{ik}}+j_{sa}-}
$$

$$
\sum_{(}^{(n_i-j_s}
$$

$$
\sum_{:=\boldsymbol{n}+\mathbb{k}} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
n_{is}+ \quad j_{ik}-\mathbb{k}_1 \quad {}^{sa}-\mathbb{k}_2)
$$

$$
\sum_{+\mathbb{k}_2-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\quad ik - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.
$$

$$
+ j_{sa}^{ik}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \cdots} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_s}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{s}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{s}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik}$ $j^{sa} + j_{sa}^{ik} - j$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} +$ $- s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{s}$ $- j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq$ $- 1 \wedge j_{sa}^{ik} <$ $- 1 \wedge j_{sa}^{s} = j_{s}$ $1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \ldots \mathbb{k}_2, j_{sa}, \ldots i_{sa}\} \wedge$

$s >$ $\boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z$: $z = 2$ $= \mathbb{k}_1 + \mathbb{k}$ $\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{n}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l}+1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_{ik} \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}-j^{sa} \leq \boldsymbol{n}-j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}\right.$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-j_{sa}^{ik})}\ \sum_{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D)}^{\boldsymbol{l}+1}\ \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{i} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa}-s)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{n}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-\boldsymbol{l_{sa}}-s)!}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{sa}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{sa}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1<j_{sa}^{i}-1=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa}^{ik},\cdots,j_{sa}^{i}\}\wedge$

$s>4\wedge\boldsymbol{s}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}\wedge$

$\mathbb{k}_2=\mathbb{k}_1+\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{n} - \boldsymbol{l} - 1)!}{(\boldsymbol{n} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GULDUNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-j_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(j_{sa}-\boldsymbol{l}-1)!}{(j_{sa}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} - 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge P = \boldsymbol{n} + 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} 1
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+\boldsymbol{l_{sa}}-j^{sa}-s)!}\cdot
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa} - D - 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j \quad - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad \wedge \boldsymbol{l_i} \quad - s = \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j \quad = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S} \quad _1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \quad _a, \cdots, j_{sa}^{i}\} \wedge$

$s \quad 4 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_z: \quad = 2 \wedge \mathbb{k} = \mathbb{k}_1 \quad \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\boldsymbol{l_{ik}} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l}+\boldsymbol{n}-D)}^{} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>0\big)\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1$

$\boldsymbol{s}:\{j_{sa}^{s}=\mathbb{k}_1,j_{sa}^{ik},\cdots,j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$s\geq 4\wedge\boldsymbol{s}=\mathbb{k}\wedge$

$\mathbb{k}_z:=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{\left(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_s-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{n}-D)}^{\boldsymbol{n}} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>0\big)\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1$

$\boldsymbol{s}:\{j_{sa}^{s}=\mathbb{k}_1,j_{sa}^{ik},\cdots,j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$s\geq 4\wedge\boldsymbol{s}=\mathbb{k}\wedge$

$\mathbb{k}_z:=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j^{sa} + j_{sa}^{ik} - j_{ik} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D > \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa} - 1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{\cdot}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{\cdot}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{\cdot} - 1)!}{(j_s - 2)! \cdot n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{\cdot} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
\big((D \geq \cdot < n \wedge \boldsymbol{l_s} > D \cdot \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq j_s \leq j_{ik} \cdot {}^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j^{ik}_{sa} + \cdot = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee
$$

$$
(D \leq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge
$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{i} \quad \boldsymbol{l}_s - \boldsymbol{l}_{ik})}
$$

$$
\boldsymbol{l}_{sa}+\boldsymbol{n}+j_{sa}^{ik} \quad j_{sa}-1 \qquad (\boldsymbol{l}_{sa} \quad)
$$

$$
\sum_{\boldsymbol{l}_{ik}+\boldsymbol{n}-D} \qquad \sum_{i^{sa}=\boldsymbol{l}_{sa}+\boldsymbol{n}-D)}
$$

$$
(\quad j_s+1)
$$

$$
\sum_{n_{i} \quad +\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
n_{is} \quad j_{ik}-\mathbb{k}_1 \quad n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)
$$

$$
\sum_{n_{ik}=\boldsymbol{n}} \quad -j_{ik}+1 \quad (n_{sa}=\boldsymbol{n}-j^{sa}+1)
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} Q01$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}-j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\quad-s)!}{(D+j^{sa}-\quad-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+\quad-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-\quad=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\quad) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}-1 \leq j_{ik} \leq \quad+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\quad-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+\quad-j_{sa}>\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\big) \wedge$

$D \geq \quad<n \wedge I=\mathbb{k}\quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i}\quad 1 \wedge j_{sa}^{ik}<j_{s}\quad-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}:\{j_{s}\quad_1, j_{sa}^{ik},\quad_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}\quad+\mathbb{k} \wedge$

$\quad z=2\quad\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik} \quad < j_{ik} \leq \quad + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} \quad j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \quad < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1 \wedge$

$2 \quad j_s \leq j_{ik} \quad ^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} - j_{sa}^{ik} \leq j \quad \leq \boldsymbol{n} + j_{sa} \quad \wedge$

$\quad - j_{sa}^{ik} \quad 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \geq \quad < n \wedge I \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s}, \mathbb{k} \quad _{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}_{\boldsymbol{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-n_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \mathbb{k} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \mathbb{k} > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{}^{(j_s+1)}
$$

$$
\sum_{}^{n_{is}+j_s-j_{ik}} \sum_{}^{(n_{ik}+j_{ik}-j^{sa})}
$$

$$
\sum_{}^{+1} \sum_{(}^{\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{- n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{- \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \quad - 1)! \cdot (\boldsymbol{n} - \quad)!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \quad - 1)!}{\quad - j_s \quad + 1)!} \cdot \frac{}{(j_s - 2)!}$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} \quad j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l} \quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \quad a + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \leq j^{\quad} < \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \quad \wedge \boldsymbol{l_{sa}} + \quad ik - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1$

$\quad \leq j_s \leq \quad - j_{sa}^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \quad \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$\quad \boldsymbol{n} \quad \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GUDUMYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}}^{(\quad)}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(\quad j_s+1)}
$$

$$
\sum_{}^{n_{is}+j_s-j_{ik}} \sum_{}^{(n_{ik}+j_{ik}-j}
$$

$$
\sum_{+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{s - n_{ik}}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{- \mathbb{k}_2 - 1)!}{(j^{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\quad)}
$$

GÜLDÜMYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - \boldsymbol{l} - 1)!}{(\boldsymbol{l} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_{sa}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{sa}} + \boldsymbol{l_{ik}} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \boldsymbol{l} - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \boldsymbol{l} - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

GUDUMYA

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+\ -\boldsymbol{l_{ik}})}^{)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_i=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i\ )}
$$

$$
\sum_{\ =\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}\ -j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \ )! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(\ _{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\ _{sa} - \ _{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$((D \geq \boldsymbol{n} < \ \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=\boldsymbol{l}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\quad)} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

GÜLDÜNYA

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - [illegible]} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - [illegible] - j_{sa}\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} [illegible])!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - [illegible] s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s [illegible] - j_{sa}+1)}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)}$$

$$\sum_{j_{ik} [illegible] + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{n} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(n_i-j_s+1)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{} \frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \right.$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$\frac{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})!}{(\boldsymbol{n} + j_{sa} - j$$

$$+ \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_{sa}=$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} - \boldsymbol{l_i} + j_{sa} - s - \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}-1)!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{k=\boldsymbol{l}}^{\quad}\ \sum_{\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}+1\qquad\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{s}+j_{sa}^{ik}-1$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{\left(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s}\right)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l})!}{(\boldsymbol{l_s} - \boldsymbol{l_{ik}} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l_{ik}} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{n} - D - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot($$

$$+\sum_{j_{ik}=\boldsymbol{l_s}+n_{sa}^{ik}-D-1}^{(\quad)}\sum_{j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s}^{\ j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{\mathbb{k}_z}S_{j_{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} = {}^{ik}_{sa}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{i}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} =$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} -$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots,$

$s > 4 \wedge \boldsymbol{s} = s +$

$\mathbb{k}_2: z = 2 \wedge$ $= \mathbb{k}_1 +$ $\Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa} - D - 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

GULDUNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + \quad - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge \quad = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S} \quad _1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \quad _a, \cdots, j_{sa}^{i}\} \wedge$

$s \quad 4 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_z: \quad = 2 \wedge \mathbb{k} = \mathbb{k}_1 \quad \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa} - D - 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - 1 \quad \leq j \quad + j_{sa}^{ik} - \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + \quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l} \quad \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j \quad = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge \quad < j_{sa} \quad \wedge j_{sa}^{s} \quad _{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{s} \quad \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, \quad , \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \quad 2 \wedge \mathbb{k} = \quad \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+\quad-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+\quad\wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq \quad a+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-\quad^{ik} \leq j^{sa}\quad \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\quad \wedge \boldsymbol{l_{sa}}+\quad-j_s \quad \boldsymbol{l_{ik}} \wedge$

$D \geq \quad < n \wedge I=\mathbb{k}>\quad \wedge$

$j_{sa} \leq j_{sa}^{i}-\quad \wedge j_{sa}^{ik}<j_s\quad-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j\quad, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=\quad+\mathbb{k} \wedge$

$\quad \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\quad)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \leq \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D > \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} - n \wedge \boldsymbol{l_s} > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} \leq j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \cdots = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}}}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n}}^{n} \sum_{= \boldsymbol{n} + j_s + 1)}^{(\ \ j_s + 1)}
$$

$$
\sum_{n_{is} + j_s - j_{ik}}^{} \sum^{(n_{ik} + j_{ik} -} \mathbb{k}_2)
$$

$$
\sum_{j_{ik}+1}^{} \sum_{= \boldsymbol{n} - j^{sa} + 1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \quad > D - \quad + 1 \wedge$

$2 \quad _s \leq \quad _{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜMYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j}^{(\ )} \sum_{\boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{(n_i}^{(n_i} \sum_{+1)}
$$

$$
\sum_{+\mathbb{k}}^{} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} -}^{}
$$

$$
\sum_{- j_{ik} - \mathbb{k}_1}^{} \sum_{+ j_{ik} - j^{sa} - \mathbb{k}_2)}^{}
$$

$$
\sum_{n_{ik} = \boldsymbol{n}}^{} \sum_{- j_{ik} + 1}^{} \sum_{(n_{sa}}^{} \sum_{^{sa} + 1)}^{}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \quad \boldsymbol{n} \quad \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j_{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_i = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s)}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} - 1}^{n_{is} - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{sa} + j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )} Q01 \frac{(\boldsymbol{l_s} - 1)!}{\boldsymbol{l} + \cdots \cdot (j_s - 2)!} \cdot \frac{(D + j_s - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \, \boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \cdots - j_{ik} \le j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} \cdots - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \cdots = \boldsymbol{l_{ik}} \wedge$

$D \ge \cdots < n \wedge I = \mathbb{k} \cdots 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge \cdots < j_{sa} \cdots 1 \wedge j_{sa}^{s} = \cdots - 1 \wedge$

$\boldsymbol{s}: \{\cdots \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \cdots, j_{sa} \cdots \wedge$

$\cdots > 4 \wedge \cdots s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \cdots 2 \wedge \mathbb{k} \cdots \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )} $$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-j_{ik}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l}-\boldsymbol{l}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l}_{sa}-s)!}{(D+j_{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \wedge \boldsymbol{l_{sa}} + j_{sa} - j_s - \boldsymbol{l_{ik}} \wedge$

$D \geq \leq n \wedge I = \mathbb{k} \wedge$

$j_{sa} \leq j_{sa}^{i} \wedge j_{sa}^{ik} < j_s - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = + \mathbb{k} \wedge$

$\wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)}\ \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

GUDUMYA

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - j_{sa} + 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D > \boldsymbol{n} > n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s} < \{1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-\boldsymbol{l_{ik}}+1)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} \quad j_{sa}^{ik} + 1 \quad j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \quad < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\Bbbk_z: z = 2 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}}^{n} \sum_{(n_{is}=\boldsymbol{n}+j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{is}=j_{ik}+1}^{n_{is}+j_s-j_{ik}-\Bbbk_1} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_i-j_{sa}+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+j_{sa}-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}+j_{sa}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\boldsymbol{n}+j_{sa}-j_{ik}-\mathbb{k}_1+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot
$$

$$
\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)! \cdot (j_s-2)!} \cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})! \cdot (\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{(l_{ik} + j_{sa} - \boldsymbol{l_{sa}^{ik}} + 1)}
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} -}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_i - j_s + 1)}
$$

$$
\sum_{+ j_s - j_{ik}} \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + - j_{ik} + 1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l} + \boldsymbol{l_{ik}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_s-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \ldots \mathbb{k}_2, j_{sa}, \ldots j_{sa}\} \wedge$

$s > \ldots \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \ldots \mathbb{k}=\mathbb{k}_1+\mathbb{k} \ldots \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \quad - 1)! \cdot (\boldsymbol{n} - \quad)!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \quad - 1)!}{\quad - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\quad + j_{sa}^{ik} - \quad - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \quad)! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l} \quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} \quad 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$2 \leq j \leq j_{ik} - j_{sa}^{ik} \quad 1 \wedge j_s + j_{sa}^{ik} - 1 \quad j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \quad j^{sa} \leq \boldsymbol{l} \quad j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \quad + j_{sa}^{ik} \quad a > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < \quad \wedge I = \mathbb{k} > \quad \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \quad j_{sa}^{ik} \quad a - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\quad > 4 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\quad)} \right.$$

GUDUNYA

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)}{(j^{sa} - j_{ik} - 1)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \quad - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} \quad)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\quad}^{(\quad)} \sum_{j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{\boldsymbol{l_{ik}}+\boldsymbol{n}-\quad}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{\quad -\boldsymbol{l}+1)}^{\quad}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-\quad-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\sum_{j_{ik}, j^{sa}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-\boldsymbol{l})}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}}^{n_i}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}-\mathbb{k}_2}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(j_{ik}-\boldsymbol{l}-1)!}{(j_{ik}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(\boldsymbol{l}+\boldsymbol{l_{ik}}-j_{sa}^{ik}-\boldsymbol{s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa}^{s} < j_{sa}^{ik} < j_{sa}^{i} \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GUDUMYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i-1)!}{(j_s-2)!\cdot(n_i-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}+n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$j_{ik} \geq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum^{(\ )}_{(j^{sa} = j_{ik} + j_{sa} - k)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \quad \sum^{(n_i - j_s + 1)}
$$

$$
\sum^{+ j_s - j_{ik}} \quad \sum^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \quad - j_{ik} + 1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{\quad - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)}{(j^{sa}-j_{ik}-1)}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + \boldsymbol{l_{sa}} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \ldots \mathbb{k}_2, j_{sa}, \ldots i_{sa}\} \wedge$

$s > \ldots \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \ldots = \mathbb{k}_1 + \mathbb{k} \ldots \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}\right.$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(+j_{sa}-s)!}{(+j^{sa}-\boldsymbol{n}-)!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}\right.$$

$$\sum_{k=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-}^{(\boldsymbol{l_{sa}}-1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}\,(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n}{}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{j_s-j_{ik}-}{}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{sa} = j_{sa} + j_{sa} = \sum_{\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
\left. \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \right.
$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\ +1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}-\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{ik}-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)}{(j^{sa}-j_{ik}-1)}$$

$$\frac{(n_{sa}}{(n_{sa}+j}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \geq 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{n} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{sa}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_i-\boldsymbol{n}+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+j_{ik}-j_{ik}+1}^{n_i-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j_{sa}+1)}^{(n_{sa}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{[illegible]} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - [illegible] + 1)}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - [illegible] + 2)} \right.
$$

$$
\sum_{j_{ik} = [illegible] \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} [illegible] - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + [illegible] - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\right.$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}-j_{ik}-\mathbb{k}_2)}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\ldots-1)!\cdot(\boldsymbol{n}-\ldots)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\ldots-1)!}{\ldots-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(\ldots+j_{sa}^{ik}-\ldots-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\ldots)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}}-\ldots)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}-1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l}-D-\boldsymbol{n}+1$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \ldots j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \ldots j^{sa} \leq \boldsymbol{n}-j_{sa}-s \wedge$

$\boldsymbol{l_{ik}} \ldots j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \ldots+j_{sa}^{ik} \ldots a > \boldsymbol{l_{ik}} \wedge$

$\ldots \geq \boldsymbol{n} < \ldots \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge \ldots a-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, \ldots, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\ldots > 4 \wedge \boldsymbol{s} \ldots s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\ \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

GUDUMYA

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_{sa}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_{sa}-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_{ik} \leq j_{ik} - j_{sa} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$j_{sa} = j^{ik} - 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{(n_i-\quad+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{s}+1)}
$$

$$
\sum_{-j_{ik}-\mathbb{k}_1} \sum_{+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}-j_{ik}+1} \sum_{(n_{sa}-j^{sa}+1)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot
$$

$$
\frac{(n_{ik}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)! \cdot (j_s-2)!} \cdot
$$

$$
\left. \frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})! \cdot (\boldsymbol{n}+j_{sa}-j^{sa}-s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\quad\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\quad\boldsymbol{l_{sa}}-j\quad\boldsymbol{l}\quad(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\ \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \quad - j_{sa}\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - \quad s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \geq j_{ik} \leq j^{sa} \quad _a^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{\quad} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \quad _{sa}^{s} = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \quad j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s \quad 4 \wedge \boldsymbol{s} = \quad + \mathbb{k} \wedge$

$\mathbb{k}_z; z = 2 \wedge \mathbb{k} = \mathbb{k} \quad + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \right.$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\ )} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_s}^{(}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}$$

$$\sum_{}^{n}\ \sum_{=\boldsymbol{n}+\mathbb{k}\,(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{}^{j_s-j_{ik}-\mathbb{k}}\ \sum_{}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{-j_{ik}+1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{[illegible]} = \left(\sum_{[illegible]} \sum_{(j_s [illegible] - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} [illegible]} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}-j_{ik}-\mathbb{k}_2)}$$

$$\frac{(n_{is}-1)!}{(j_s-2)!\cdot(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-j_{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{sa}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge j_{sa}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_{}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)!\,(n_i - n_{is} - 1)!}\cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)!\,(n_{} + j_s - n_{ik} - j_{ik})!}\cdot$$

$$\frac{n_{ik} - n_{s} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)!\,(n_{ik} + j_{} - n_{sa} - j^{sa} - \mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_{} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}\cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{} - \boldsymbol{l_{sa}} \wedge$

$2 \leq \boldsymbol{} \leq j_{ik} - j_{sa}^{} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n} \sum_{(n_{sa} = \boldsymbol{n} + \mathbb{k} - j^{sa} + 1)}^{(n_i - j_{ik} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}^{(j_{ik} - j_{sa}^{ik})} \right.
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\quad+\boldsymbol{n}-D)}^{\quad} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\quad)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-}\cdot$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \wedge j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{ik} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^{i}\} \wedge$

$s > 1 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{} \right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\left. \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \right.$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}}^{(}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}$$

$$\sum_{}^{n}\ \sum_{}^{(n_i-j_s+1)}$$

$$\sum_{:=\boldsymbol{n}+\mathbb{k}\,(n_{is}=\boldsymbol{n}-\mathbb{k}-j_s+1)}$$

$$+j_s-j_{ik}-1\ (n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)$$

$$\sum_{n_{ik}=\boldsymbol{n}+}\ \sum_{-j_{ik}+1\ \ (n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$$

GÜLDÜNYA

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>0\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{is} < j_{sa}^{ik}-1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s \geq 5 \wedge \boldsymbol{s}=\cdots+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-1)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\,(n_{sa}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+\quad -1\quad \leq j\quad +j_{sa}^{ik}-\quad \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+\quad -s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l}\quad \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j\quad >\boldsymbol{l_{ik}} \wedge \boldsymbol{l}\quad j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n}\quad n \wedge I=\mathbb{k}\quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j\quad <j_{sa}\quad \wedge j_{sa}^{s}\quad _{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{s}\quad \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \quad j_{sa}, \cdots, j_{sa}\} \wedge$

$s>5 \wedge \boldsymbol{s}\quad s+\mathbb{k} \wedge$

$\mathbb{k}_z: z\quad 2 \wedge \mathbb{k}=\quad \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_{ik} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j_{sa} - \boldsymbol{l})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}}-\boldsymbol{n})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\Big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}^{i}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\left\{j_{sa},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$$

$$s>5\wedge\boldsymbol{s}=\mathbb{k}_1+\mathbb{k}\wedge$$

$$\mathbb{k}_2\geq 2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-1)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!}{(D+\boldsymbol{n}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_s-j_{sa}^{ik}\leq j^{sa}<\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D+\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D+\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_s-j_{sa}^{ik}\leq j^{sa}<\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$$

$$\boldsymbol{n}=\mathbb{k}\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\;)} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa} - D - 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + 1}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge I > D - s + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa}^{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \quad a + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \leq j^{\quad} < \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \quad \wedge \boldsymbol{l_{sa}} + \quad ik - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} +$

$\quad \leq j_s \leq \quad - j_{sa}^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \quad \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$\quad \boldsymbol{n} \quad \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GUDUMYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{n_{is}+j_s-j_{ik}}^{n_{is}+j_s} \sum_{(n_{ik}+j_{ik}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}+1)}
$$

$$
\sum_{+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜMYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa}^{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l}\quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \quad a + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \leq j^{\quad} < \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \quad \wedge \boldsymbol{l_{sa}} + \quad ik - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1$

$\quad \leq j_s \leq \quad - j_{sa}^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \quad \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$\quad \boldsymbol{n} \quad \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GUDUMYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{}^{n_{is}+j_s-j_{ik}} \sum_{}^{(n_{ik}+j_{ik}-j_{sa})}
$$

$$
\sum_{+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)} \cdot \frac{}{(n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{n_{} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

GÜLDÜMYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \quad - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - \quad - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{\quad - 1)!}{(n_{sa} + \quad - \boldsymbol{n} - 1)! \cdot \quad - j^{sa})!} \cdot$$

$$\frac{- \boldsymbol{l} - 1)!}{\quad - j_s - \quad + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \quad - j_{sa}^{ik} + 1)!}{\quad + \boldsymbol{l_{ik}} \quad \boldsymbol{s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} \quad j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \quad \boldsymbol{n} < n \wedge \boldsymbol{l_s} \quad D - \boldsymbol{n} +$

$\quad \leq j_s \leq \quad - j_{sa}^{ik} + 1 \wedge \quad s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \quad ^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} \quad 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GULDUNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l}_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - \boldsymbol{l}}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = n_{ik} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_{ik} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

GÜLDÜNYA

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots} = \sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l}+1}^{\boldsymbol{l}+\boldsymbol{n}-D} \sum_{\left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}\right)}^{(\quad)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}.$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{\boldsymbol{l}}^{\boldsymbol{l_s}-1}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_{ik}-1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+j_{sa}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\big)\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa}^{i}\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>0\big)\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}$

$s\geq 5\wedge\boldsymbol{s}=\mathbb{k}\wedge$

$\mathbb{k}_z:=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - 1 \quad \leq j \quad + j_{sa}^{ik} - \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + \quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j \quad = \boldsymbol{l_{ik}} \wedge \boldsymbol{l} \quad j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j \quad < j_{sa} \quad \wedge j_{sa}^{s} \quad _{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{s} \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \quad j_{sa}, \cdots, j_{sa}\} \wedge$

$s > 5 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \quad 2 \wedge \mathbb{k} = \quad \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{(\quad-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{(\quad+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{=\boldsymbol{l}}^{(\quad-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - (\boldsymbol{n} + j_{sa} - \quad - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j^{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_i} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j^{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D > \boldsymbol{n} < n \wedge \quad \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge \quad < j_{sa}^{ik} - 1 \wedge$

$\quad \in \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, \quad sa, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s \quad \wedge$

$\mathbb{k}_z \cdot z = z \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad a}\cdot$$

$$\frac{\quad-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{\quad-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{\quad+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{\quad-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - (\boldsymbol{n} + j_{sa} - \quad - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j^{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j^{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D > \boldsymbol{n} < n \wedge \quad \mathbb{k} > 0 \wedge$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \wedge \quad < j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \cdots \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \quad sa, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s \quad \wedge$

$\mathbb{k}_z \quad z = z \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-j_s)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} - 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} - j_{sa}^{ik} \leq j_{ik} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge l - \boldsymbol{l} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\{s, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GULDUNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} {}_{j^{sa}+1)}
$$

$$
\frac{(n_i}{(j_s-2)!\cdot(n_i-n_{is}}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-\mathbb{k}}{(j_{ik}-j_s-1}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-}{(j^{sa}-j_{ik}-1}\cdot
$$

$$
\frac{(n_{sa}}{(n_{sa}+j}\cdot
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$$
\Big((D \geq \quad < n \wedge \boldsymbol{l_s} > D \quad \boldsymbol{n}+1 \wedge
$$

$$
2 \leq j_s \leq j_{ik} \quad {}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge
$$

$$
j_{ik} \quad j_{sa} \quad {}_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge
$$

$$
\boldsymbol{l_{ik}}-j_{sa}^{ik}+ \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}}) \vee
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge
$$

$$
2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge
$$

$$
j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge
$$

$$
\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s > \boldsymbol{l_{sa}})\Big) \wedge
$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}_{sa}}^{(\boldsymbol{l}_{ik} - j_{sa}^{ik} + 2)} \sum_{(\boldsymbol{l}_{sa} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}^{(\boldsymbol{l}_{ik} - j_{sa}^{ik} + 2)}
$$

$$
\sum_{j_{sa} + j_{sa}^{ik} - 1}^{(\boldsymbol{l}_{ik} - j_{sa}^{ik} + 2)} \sum_{(j_{sa} + j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l}_{ik} - j_{sa}^{ik} + 2)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_{is} + j_{ik} - j_{sa} - \mathbb{k}_1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\Big) \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$
{}_{fz}S_{j_s, j_{ik}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} -$$

$$(\boldsymbol{l_{ik}} -$$

$$\sum_{k=\boldsymbol{l}}$$

$$(\boldsymbol{l_{sa}}$$

$$\sum_{j_s+j_{sa}^{ik}-1}$$

$$\sum_{n_{i}+\mathbb{k}}$$

$$n_{is}+$$

$$\sum_{n_{ik}=\boldsymbol{n}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(\quad - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\left((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge\right.$$

GÜLDÜNYA

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{\dots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=}^{(l_s-\boldsymbol{l}+}\ \sum_{=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}}^{}$$

$$^{\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_s}^{j_{ik}-1}\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

GÜLDÜNYA

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} - \boldsymbol{l_i} + j_{sa} - s - \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa}+1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{} \sum_{\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}+1 \qquad \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$+j_{sa}^{ik}-1$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{\left(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s}\right)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}^{i}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{\left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}\right)}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{n} - D - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s \geq 5 \wedge \boldsymbol{s} = \mathbb{k} \wedge$

$\mathbb{k}_z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\quad-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\quad+\boldsymbol{l_{sa}}-\quad-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\quad-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+\right.}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\right.-j_{sa})!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{sa}-j^{}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j^{} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l}^{} \wedge \boldsymbol{l_i} + j_{sa} - s^{} \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa}^{} \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots^{i}_{a}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k}$

$\mathbb{k}_{} z = 2 \wedge \mathbb{k}_{} \mathbb{k}_1 + \mathbb{k}_{} \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

GULDUNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_s} + j_{sa} - \boldsymbol{l} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} <$ $_{a}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+1)}\sum_{j_{sa}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}^{-\boldsymbol{l}+1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{\dots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\boldsymbol{l_{sa}}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s}^{(}$$

$$\sum_{j_{ik}=}^{\boldsymbol{l_{ik}}-\boldsymbol{l}}\sum_{}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}-1}^{}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{\dots, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>5 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{ik}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-\boldsymbol{l_{ik}}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa} -$ $\wedge j_{sa}^{s} < j_{sa}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s +$ $\wedge$

$\mathbb{k}_2: z = 2 \wedge$ $= \mathbb{k}_1 +$ $\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1)$$

$$\frac{(D + j_{sa} -$$

$$(D + j^{sa} -$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} +$ $- j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik}$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge$ $< j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots$ $, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s$ $\wedge$

$\mathbb{k}_z$: $= 2 \wedge \mathbb{k} = \mathbb{k}_1$ $\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa} - D - 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\quad-1)!\cdot(\boldsymbol{n}-\quad)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\quad-1)!}{-j_s-\quad+1)!\,(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\quad-\boldsymbol{l_{sa}})!\quad+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+\quad-1\quad\leq j\quad+j_{sa}^{ik}-\quad\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+\quad-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l}\quad\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j\quad=\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}\quad0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge\quad<j_{sa}\quad\wedge j_{sa}^{s}\quad_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{s}\quad\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\quad j_{sa},\cdots,_{sa}\}\wedge$

$s>5\wedge\boldsymbol{s}\quad s+\mathbb{k}\wedge$

$\mathbb{k}_z:z\quad2\wedge\mathbb{k}=\quad\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}-D-1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{n} - \boldsymbol{l} - 1)!}{(\boldsymbol{n} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \wedge \boldsymbol{l_{sa}} + j_{sa} - j_s - \boldsymbol{l_{ik}} \wedge$

$D \geq \leq n \wedge I = \mathbb{k} \wedge$

$j_{sa} \leq j_{sa}^{i} - \wedge j_{sa}^{ik} < j_s - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j \quad \mathbb{k}_1, j_{sa}^{ik}, \quad, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = + \mathbb{k} \wedge$

$\wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

GUDUMYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)!\,(n_i-n_{is}}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1}{(j_{ik}-j_s-1)!\,(}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)}{(j^{sa}-j_{ik}-1)!\,(n_{ik}+}$$

$$\frac{(n_{sa}}{(n_{sa}+}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D$$

$D \geq \boldsymbol{n} < n$ $> D -$ $+ 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{i}$ $1 \wedge j_s$ $\leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{s}$ $- j_{sa}^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} +$ $\boldsymbol{l_s} \wedge \boldsymbol{l_s}$ $- j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

D $\boldsymbol{l}$ $n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} -$ $\wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}$: $\{$ $, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1}^{j_{ik}-j_{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \mathbb{k} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \mathbb{k} = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \quad \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \quad \sum_{(\quad + j_s + 1)}^{(\quad j_s + 1)}
$$

$$
\sum_{n_{is} = j_s - j_{ik}}^{n_{is} + j_s - j_{ik}} \quad \sum_{(n_{ik} + j_{ik} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + \quad)}
$$

$$
\sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{\quad + 1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - \quad - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(\quad - \mathbb{k}_2 - 1)!}{(j^{sa} - \quad - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \quad > D \quad \boldsymbol{l} + 1 \wedge$

$2 \quad j_s \leq \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = j_{ik} + j^{sa} - \mathbb{k}_2)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + \ldots}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(\ldots + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{\ldots = \boldsymbol{n} + \mathbb{k}} \sum_{(\ldots = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + \ldots)}
$$

$$
\sum_{n_{i\ldots} + \mathbb{k}_2 - j_{ik}}^{n_{is} + \ldots - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{i\ldots} - \ldots - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \ldots)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\ldots - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < \ldots \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l}_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - \boldsymbol{l}_{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = n_i - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_{sa} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}_{ik}}^{(\boldsymbol{l}_{ik}-j_{sa}^{ik}+2)} \sum_{\boldsymbol{l}_{sa}+\boldsymbol{n}-\boldsymbol{l}_{sa}+1)}^{(\boldsymbol{l}_{sa}+j_{sa}+1)}
$$

$$
\sum_{j_{ik}+j_{sa}^{ik}-1}^{\boldsymbol{n}} \sum_{(j_{sa}+j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}-\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{sa}-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - \cdots + 1)}^{(\boldsymbol{l_s} - \cdots)} \sum_{\cdots}^{(\ )} \sum_{j_{ik} \cdots + j_{sa}^{ik} - 1 \ (\cdots - j_{sa}^{ik})}^{\cdots} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)} \sum_{n_{is} + j_s \cdots - \mathbb{k}_1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}} \sum^{(j_s + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}
$$

$$
\sum^{} \sum^{} \left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}\right)
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{sa}} = \sum_{k=1}^{n} \sum_{(j_{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-1}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

GÜLDÜNYA

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i} \right\} \wedge$$

$$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_s,\ldots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{\left(\boldsymbol{l_s}-\boldsymbol{l}-j_{sa}+2\right)} \sum_{\left(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D\right)}$$

$$\sum_{j_{ik}=\left(\right)}^{j_{sa}^{ik}-1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{\left(\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{\left(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1\right)}^{\left(n_i-j_s+1\right)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\left(n_{sa}=\boldsymbol{n}-j^{sa}+1\right)}^{\left(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2\right)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S}{}_{j_s \cdots, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \right.$$

$$\left.\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot\right.$$

$$\left.\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot\right.$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - \quad}^{j^{sa} + j_{sa}^{ik} - j_{sa} - \quad + j_{sa} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D}^{\quad + j_{sa} - \boldsymbol{l}_{sa}^{ik} + 1)} \right.$$

$$\sum_{=\boldsymbol{n} + \mathbb{k}\,(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{\quad - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \quad - j_{ik} + 1 \quad (n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{\quad - j_{ik} - \mathbb{k}_2 \quad (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \left(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\quad+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \quad < n \wedge \boldsymbol{l_s} > D \quad \boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa} \quad \boldsymbol{n}-\boldsymbol{l_{sa}} \quad 1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \quad j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}- \quad \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\quad 1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{(n_i = \quad + 1)}
$$

$$
\sum_{+\mathbb{k}\ (n_{is} = \boldsymbol{n} + \mathbb{k} -}
$$

$$
\sum_{+ j_{ik} - j^{sa} - \mathbb{k}_2)}^{j_s - j_{ik} - \mathbb{k}_1}
$$

$$
\sum_{n_{ik} = \boldsymbol{n}}^{\quad - j_{ik} + 1}
$$

$$
\frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n - \mathbb{k}_1 - 1)!}{(\quad - j_s - 1)! \cdot (\quad + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{i} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
\boldsymbol{l} \quad n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge
$$

$$
2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} \ldots + 1)} \right.
$$

$$
\sum_{j_{ik} \ldots {}^{sa} + j_{sa}^{ik} - j_{sa} \ldots} \sum_{\ldots + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s \ldots {}_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1}{(j_{ik}-j_s-1)}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_s)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_s}-s)!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: (j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i})$

$s > \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \quad - 1)! \cdot (\boldsymbol{n} - \quad)!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \quad - 1)!}{\quad - j_s \quad + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\quad + j_{sa}^{ik} - \quad - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \quad)! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l} \quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} \quad 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$2 \leq j \leq j_{ik} - j_{sa}^{ik} \quad 1 \wedge j_s + j_{sa}^{ik} - 1 \quad j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \quad j^{sa} \leq \boldsymbol{l} \quad j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \quad + j_{sa}^{ik} \quad a = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < \quad \wedge I = \mathbb{k} > \quad \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \quad j_{sa}^{ik} \quad a - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, \quad , j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\quad > 5 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \right.$$

GUDUMYA

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=l_s+1-D}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{j_{ik}=}^{}\ \sum_{}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{j_s, j_{ik}, j^{sa}} = \sum_{=\boldsymbol{l}}^{\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{\left(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s}\right)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\left. \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \right)$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{j_{ik}=\boldsymbol{l_{ik}}+}^{j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}\,(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{-j_{ik}+1}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_s-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s \quad + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} \quad - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_s \quad - \boldsymbol{l_{sa}} - s)}{(D + j^{sa} \quad - \boldsymbol{l_{sa}})! \quad + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \quad \boldsymbol{n} + 1$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j \quad j_{sa}^{ik} - 1 \leq j_{ik} \quad j^{sa} + j_{sa} \quad j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} \quad s \wedge$

$\boldsymbol{l_{ik}} - \quad + 1 > \boldsymbol{l_s} \quad \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \quad \boldsymbol{l_{ik}} \wedge$

$D \quad \boldsymbol{n} < n \wedge \quad = \mathbb{k} > 0$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \quad \quad < j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \quad \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \quad sa, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_2 \quad = 2 \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{\quad+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq \quad + \boldsymbol{l_s} + j_{sa} - \quad - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - \quad ik + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} - \quad ik \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GULDUNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik} + 1} \sum_{(n_{ik} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{\boldsymbol{l}=1}^{(\boldsymbol{l_{ik}}-1)} \sum_{(j_s=j_{ik}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}+\boldsymbol{l}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\left.\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot\right)$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\Bigg)+$$

$$\left(\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-j_{sa}}^{j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}$$

$$\frac{(n_i$$

$$\frac{(n_{is}-$$

$$\frac{(n_{ik}-$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s}$ $\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j$ $-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq$ $-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} +}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \ \sum_{j^{sa}=\boldsymbol{l_{sa}}}^{(\ \ -\boldsymbol{l}+1)} (\ \ \boldsymbol{n}-D)
$$

$$
\sum_{\ \ =\boldsymbol{n}+\mathbb{k}}^{} \ \sum_{(\ \ =\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s +} \qquad (n_i - j_s + 1)
$$

$$
n_{is} + \ \ j_{ik} - \mathbb{k}_1 \quad (\ \ ^{sa} - \mathbb{k}_2)
$$

$$
\sum_{\ \ +\mathbb{k}_2 - j_{ik}}^{} \ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \ \ ! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - \ \ _s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\ \ _{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.$$

$$\boldsymbol{l_s} \cdots \boldsymbol{l}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} \cdots + j_{sa}^{ik} - D} \cdots \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-)}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{is}-\mathbb{k}_2)}$$

$$\frac{(\quad n_{is}\quad 1)!}{(j_s \quad)! \cdot (n_i - \quad s + 1)!} \cdot$$

$$\frac{(\quad - n_{ik} - \quad - 1)!}{\quad - j_s - 1)! \cdot \quad + j_s - \quad ik - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{s\quad} - \mathbb{k}_2 - 1)!}{0 \quad - j_{ik} - \quad)! \cdot (n_{\quad} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)! \cdot (j_s-2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})! \cdot \left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!} \cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})! \cdot (\boldsymbol{n}+j_{sa}-j^{sa}-s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l}$ $D-\boldsymbol{n}+1$

$2 \leq j_{ik} \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge j_{sa}^{ik} \leq \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-1 \wedge j_{sa}^{s}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\mathbb{k} > 5 \wedge \boldsymbol{s} < s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{n} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$j_{sa}^{ik} - 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum^{(\ )} \left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} \right)
$$

$$
\sum^{(n_i - \ \ + 1)}
$$

$$
n_i \ \ \mathbb{k} \left(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s \right)
$$

$$
j_{ik} - \mathbb{k}_1 \quad \left(\ \ + j_{ik} - j^{sa} - \mathbb{k}_2 \right)
$$

$$
\sum
$$

$$
n_{ik} = \boldsymbol{n} + \ \ j_{ik} + 1 \quad (n_{sa} \qquad {}^{a} + 1)
$$

$$
\frac{(n_i \ \ n_{is} - 1)!}{(j_s \ \ 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n \ \ - \mathbb{k}_1 - 1)!}{- j_s \ \ )! \cdot (\ \ _s + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{i} \ \ - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}^{(j_{ik} - j_{sa}^{ik} + 1)} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{\left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1 \right)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_{ik} - \boldsymbol{l} - 1)!}{(j_{ik} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa}^{ik})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(j_{sa}-j^{sa}-s)!}+$$

$$\sum_{(j_s=\boldsymbol{l_s}-\boldsymbol{l}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+D)}\sum_{j_{ik}=\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{\left(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s}\right)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{(j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s)} \sum_{= \boldsymbol{n} + \mathbb{k} - j_s + 1)}$$

$$n_{is} \quad j_{ik} - \mathbb{k}_1 \quad ^{sa} - \mathbb{k}_2)$$

$$\sum_{\boldsymbol{n} + \mathbb{k}_2 - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(\quad n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \quad j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\quad - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{\left(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s}\right)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}\ (j_s} \sum_{+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{ik}}} \sum_{(\boldsymbol{l_{sa}}+1)}
$$

$$
\sum_{=j_s+j_{sa}^{ik}-} \sum_{^{isa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{j_{ik}=j_s+j_{sa}^{ik}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=}^{(n_i-j_s+1}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}}^{(n_{ik}+j_{ik}$$

$$\frac{(n_i-$$

$$\frac{(n_{is}-$$

$$\frac{(n_{ik}-$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge$ D $\boldsymbol{n}+1 \wedge$

D $\boldsymbol{l_s}+$ $-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq$ $-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=n_{is}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-n_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n}$ $\wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1$ $j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik}$ $j^{sa} \leq \boldsymbol{n}$ $j_{sa} - s \wedge$

$\boldsymbol{l_{ik}}$ $j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge$ $+ j_{sa}^{ik}$ $_{sa} > \boldsymbol{l_{ik}} \wedge$

$\geq \boldsymbol{n} <$ $\wedge I = \mathbb{k} >$ $\wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge$ $_{sa}^{ik} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}^{s}, \cdots,$ $j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$> 5 \wedge \boldsymbol{s}$ $s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

GULDUNYA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-1}\ \sum_{j_{ik}=j_s+j_s}^{(}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{\dots,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\left.\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\right)\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j_k=\boldsymbol{l_{sa}}+\boldsymbol{n}-\boldsymbol{l}-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}+1}\ \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{ik}-\mathbb{k}_1}^{n_{is}+j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+j_{ik}-j_{ik}+1}^{n_{ik}-j_{ik}+1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_{sa}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{l} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - \boldsymbol{l_s} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - \boldsymbol{n} + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_{ik} - j_{ik} + 1}^{n_i - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{j_{ik} = j_s + j_{sa}^{ik}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+1)!}{(\boldsymbol{l}+\boldsymbol{l_{ik}}-j_s)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(j_{sa}-j^{sa}-s)!}+$$

$$\sum_{(\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{\boldsymbol{n}-D-j_s+1)\ j_{ik}=j_s+1}^{j_{ik}+j_{sa}-1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\left.\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot\right)$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \left(\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}}^{} \right.$$

$$\sum_{j_{ik}-}^{(\boldsymbol{l_s}-\boldsymbol{l})} \sum_{+j_{sa}^{ik}-j_{sa}^{} = \boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1+1}\sum_{(n_{sa}=\boldsymbol{n}-}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-1)!}{(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-\mathbb{k}_2-1)!}{(j^{sa}-j_{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} \quad \boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{\quad} - \boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$0 \leq j_s \leq \quad -j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(}^{(\boldsymbol{l_{ik}}+j_{sa}-}
$$

$$
\sum_{(}^{(n_i-j_s}
$$

$$
\sum_{:=\boldsymbol{n}+\mathbb{k}} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
n_{is}+ \quad j_{ik}-\mathbb{k}_1 \quad {}^{sa}-\mathbb{k}_2)
$$

$$
\sum_{+\mathbb{k}_2-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(\quad - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \quad j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(\quad ik - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

GÜLDÜNYA

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \sum \right.$$

$$+ j_{sa}^{ik}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} +} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_s-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_s)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\,(\boldsymbol{n}+j_s-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}+1 \wedge$

$\boldsymbol{s}: (j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i})$

$s > \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} \quad 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} \quad 1 \wedge j_s + j_{sa}^{ik} - 1 \quad j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \quad j^{sa} \leq \boldsymbol{l} \quad j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \quad + j_{sa}^{ik} \quad a = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < \quad \wedge I = \mathbb{k} > \quad \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \quad j_{sa}^{ik} \quad a - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, \quad , j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\quad > 5 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.$$

GUDUMYA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-j_{sa}^{ik})}\ \sum_{=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l}+1}\ \sum_{a=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} \quad - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \quad \wedge \boldsymbol{l_i} + j_{sa} - \quad \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s \quad j_{sa}^{ik} - 1 \leq \quad \leq j^{sa} \quad ^{ik} \quad _{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j \quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \quad \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \quad \boldsymbol{l_{ik}} \wedge \quad + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \quad \boldsymbol{n} < n \wedge \quad = \mathbb{k} > 0 \quad \wedge$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \quad \quad < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \quad \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \quad _{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = \quad \mathbb{k} \wedge$

$\mathbb{k}_2 \quad = \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\boldsymbol{n}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}{(\boldsymbol{l}-\boldsymbol{l}-1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l}_{sa}-s)!}{(D+j_{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$

$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}\colon\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$s>5\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$

GÜLDÜNYA

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n}}^{n} \quad \sum_{= \boldsymbol{n} +}^{(\ j_s + 1)}
$$

$$
\sum_{}^{n_{is} + j_s - j_{ik}} \quad \sum_{}^{(n_{ik} + j_{ik} - j}
$$

$$
\sum_{j_{ik} + 1}^{} \quad \sum_{= \boldsymbol{n} - j^{sa} + 1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad j_{ik} - \mathbb{k}_1 \quad 1)!}{(j_{ik} \quad j_s - 1)! \cdot (n \quad + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{n_{ik} - n \quad - \mathbb{k}_2 - 1)!}{(j^{sa} \quad - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \quad \sum_{(j^{sa} = \boldsymbol{l_s} + j_{sa} - \boldsymbol{l} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

GÜLDÜMYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}\quad\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}\quad\boldsymbol{l_{sa}}-j\quad\boldsymbol{l}\quad(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\quad<n\wedge\boldsymbol{l_s}>\quad\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-\quad+1\wedge\quad\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}\quad-j_{sa}^{ik}\leq j^{s}\quad\boldsymbol{n}+j_{sa}\quad s\wedge$

$\boldsymbol{-j_{sa}^{ik}}\quad=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}\quad j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\quad<n\wedge\quad\quad0\wedge$

$j_{sa}\leq j_{sa}^{i}\quad\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\quad\{j_{sa}^{s},\quad\quad_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} 1
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+\quad -j^{sa}-s)!}\cdot
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\quad D}^{\boldsymbol{l_{ik}}-} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\big)\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa}^{i}\right\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z\geq 2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}-D-1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j \quad - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad \wedge \boldsymbol{l_i} \quad - s = \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j \quad < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S} \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots \quad , j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s \quad 5 \wedge \boldsymbol{s} = s \quad \wedge$

$\mathbb{k}_z: \quad = 2 \wedge \mathbb{k} = \mathbb{k}_1 \quad \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l}-\boldsymbol{n}-D)}^{} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > 1\big)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s \geq 5 \wedge \boldsymbol{s} = \mathbb{k} \wedge$

$\mathbb{k}_z : = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{\left(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik}\right)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_s-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{n}-D)}^{\boldsymbol{n}-D} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > 1\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s \geq 5 \wedge \boldsymbol{s} = \mathbb{k} \wedge$

$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-1)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\,(j_{sa}-j^{sa}-s)!}$$

$$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}-1-j_{sa}^{ik}\leq j^{sa}\leq j_{ik}-j_{sa}^{ik}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}-1-j_{sa}^{ik}\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$$

$$D>\boldsymbol{l}>m\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$$

$$\mathbb{k}_z\colon z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}+j_{sa}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i-1)!}{(j_s-2)!\cdot(n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}+\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}})\big) \wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{i} \quad \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} \quad j_{sa} - 1 \qquad (\boldsymbol{l_{sa}} \quad)
$$

$$
\sum_{\boldsymbol{l_{ik}} + \boldsymbol{n} - D} \qquad \sum_{j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
(\quad j_s + 1)
$$

$$
\sum_{n_{i} \quad + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} + \quad j_{ik} - \mathbb{k}_1 \quad n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)
$$

$$
\sum_{n_{ik} = \boldsymbol{n} \quad - j_{ik} + 1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(\quad - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} Q01$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}-j_{sa}^{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\quad-s)!}{(D+j^{sa}-\quad-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + \quad - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \quad = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \quad) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq \quad + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}\big) \wedge$

$D \geq \quad < n \wedge I = \mathbb{k} \quad 0 \wedge$

$j_{sa}^{s} \leq j_{sa}^{i} \quad 1 \wedge j_{sa}^{ik} < j_{sa}^{s} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa} \quad \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\quad z = 2 \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

GUIDUNYA

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1+1)!}{(j_{ik}-j_s-1)}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}^{ik}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \quad)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad \right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik} \quad < j_{ik} \leq \quad a + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} \quad j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \quad < n \wedge \boldsymbol{l_s} > \quad - \boldsymbol{n} + 1 \wedge$

$2 \quad j_s \leq j_{ik} \quad ^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} - j_{sa}^{ik} \leq j \quad \leq \boldsymbol{n} + j_{s} \quad \wedge$

$\quad - j_{sa}^{ik} \quad 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \big) \wedge$

$D \geq \quad < n \wedge I \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s} \quad _1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GULDUNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-n_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1 - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} + j_s - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} + j_{ik} - j^{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} \wedge n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} \quad ik + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(\ \ j_s+1)}
$$

$$
\sum^{n_{is}+j_s-j_{ik}} \sum^{(n_{ik}+j_{ik}-j^{sa}\ \ )}
$$

$$
\sum^{\ \ +1} \sum_{(\ \ \boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-\ \ _{ik}-\mathbb{k}_1-1)!}{(j_{ik}-\ \ j_s-1)!\cdot(n_{ik}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{-\ \ -\mathbb{k}_2-1)!}{(j^{sa}-\ \ -1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i-j_s+1)}_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\quad-1)!\cdot(\boldsymbol{n}-\quad)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\quad-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{\quad}-\boldsymbol{l_s})!\cdot(\quad-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+\quad-\boldsymbol{l_{sa}}-s)!}{(D+\quad^{sa}-\boldsymbol{n}-\boldsymbol{l}\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\quad+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq\quad^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+\quad-j_{sa}^{ik}\leq j^{\quad}<\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\quad\wedge\boldsymbol{l_{sa}}+\quad^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\quad\boldsymbol{n}<n\wedge\boldsymbol{l_s}>\quad-\boldsymbol{n}+1$$

$$\leq j_s\leq\quad-j_{sa}^{ik}+1\wedge\quad+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+\quad-j_{sa}^{ik}\quad\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\quad>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$$

$$\quad\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$$

GÜLDÜNYA

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\boldsymbol{l_{ik}}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\boldsymbol{l_{ik}}-j_s+1)}^{(n_{is}-j_s+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\boldsymbol{l_{ik}}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\boldsymbol{n})}
$$

$$
\frac{(n_i - n_{is} - j_s)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\big((D\geq\quad<n\wedge\boldsymbol{l_s}>\quad-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-\quad+1\wedge j_s+\quad-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+\quad-j_{sa}^{ik}\leq j^{sa}\quad\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\quad=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+\quad-j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\quad<n\wedge\boldsymbol{l_s}\quad-\boldsymbol{n}+1\wedge$$

$$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

GÜLDÜNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}}^{} \sum_{j^{sa}=j_{ik}+}^{(\boldsymbol{n}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i}$$

$$n_{is}$$ $$-j_{ik}-\mathbb{k}_1$$ $$j^{sa}-\mathbb{k}_2)$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}_2-j}$$ $$\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s -)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \; j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{sa - - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}\big) \wedge$$

$$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}} = \sum_{k=\boldsymbol{l}}^{(j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{ik}}}^{(j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

GÜLDÜNYA

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-$$

$$+\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=$$

$$\sum_{j_{ik}=}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - \big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_s}}\sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{\boldsymbol{l_{sa}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

GÜLDÜNYA

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - \quad) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}}-\boldsymbol{l_i}+j_{sa}-s \leq \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots$

$s > 5 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_s-\boldsymbol{l_{ik}}+\boldsymbol{l_s}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+\boldsymbol{l_s}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\sum_{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}+1}^{(\ )}\sum_{s+j_{sa}^{ik}-1}^{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{\left(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}\right)!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa}^{i}\right\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{n} - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<$ $_{a}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+\mathbb{k}_2-D-1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>5 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s \cdots j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{\mathbb{k}_z}S_{j_{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>5 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}$$

$$\frac{(D+j_{sa}-\quad-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1)!\cdot(\boldsymbol{n}+j_{sa}-\quad-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{sa} \leq j^{sa}+j_{sa}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-\quad \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \quad, j_{sa}^{i}\} \wedge$

$s>5 \wedge \boldsymbol{s}=s+\quad \wedge$

$\mathbb{k}_-: z=2 \wedge \quad =\mathbb{k}_1+\quad \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}-D-1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

GÜLDÜNYA

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + \quad - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge \quad < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{S} \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots \quad , j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_z \quad = 2 \wedge \mathbb{k} = \mathbb{k}_1 \quad \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa} - D - 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\,(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\,(n_{is}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+\;\;-1\;\;\leq j\;\;+j_{sa}^{ik}-\;\;\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+\;\;-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l}\;\;\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j\;\;=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}\;\;0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j\;\;<j_{sa}\;\;\wedge j_{sa}^{s}\;\;j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{s}\;\;\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\;\;j_{sa},\cdots,j_{sa}\} \wedge$

$s>5 \wedge \boldsymbol{s}\;\;s+\mathbb{k} \wedge$

$\mathbb{k}_z: z\;\;2 \wedge \mathbb{k}=\;\;\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\;\;)}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\;\;)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_s - \boldsymbol{l} - 1)!}{(n_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \wedge \boldsymbol{l_{sa}} + j_{sa} - j_s - \boldsymbol{l_{ik}} \wedge$

$D \geq \leq n \wedge I = \mathbb{k} \wedge$

$j_{sa} \leq j_{sa}^{i} - \wedge j_{sa}^{ik} < j_s - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j \quad \mathbb{k}_1, j_{sa}^{ik}, \quad, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = + \mathbb{k} \wedge$

$\wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

GUDUMYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1+1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D > \boldsymbol{n} < n \wedge 1 > D - \quad + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + \quad \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \quad + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \quad \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \quad \boldsymbol{l} \quad \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - \quad \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+1)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1+1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - \mathbb{k} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} + j_{ik} - j_s - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} + j^{sa} - j_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \mathbb{k} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} \leq j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \mathbb{k} = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n}}^{n} \sum_{= \boldsymbol{n} + j_s + 1)}^{(\ j_s + 1)}
$$

$$
\sum_{j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{= \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - \ \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} \quad j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{n_{ik} - n \quad - \mathbb{k}_2 - 1)!}{(j^{sa} \quad - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \quad > D - \quad + 1 \wedge$

$2 \quad _s \leq \quad _{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜMYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_{sa} + 1)}^{(n_i - j_{sa} + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + j_{ik} - j_{ik} + 1}^{n_{is} - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = j_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{is} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l}_{ik})}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j_{sa} = j_{ik} + \boldsymbol{l_{ik}} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_i = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s)}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} - 1}^{n_{is} - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{sa} + j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}$$

$$ \sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})} Q01 $$

$$ \frac{(\boldsymbol{l_s} \quad l - 1)!}{\boldsymbol{l_s} \quad \boldsymbol{l} + \quad \cdot (j_s - 2)!} \cdot $$

$$ \frac{(D + j_s \quad - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} \quad - \boldsymbol{l_{sa}})! \quad \boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad j_{ik} \le j \quad + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} \quad _a - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \quad = \boldsymbol{l_{ik}} \wedge$

$D \ge \quad < n \wedge I = \mathbb{k} \quad 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge \quad ^{ik} < j_{sa} \quad 1 \wedge j_{sa}^{s} \le \quad ^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j \quad \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots \quad , j_{sa}, \cdots \quad _{sa}\} \wedge$

$s > 5 \wedge s \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z: z \quad 2 \wedge \mathbb{k} \quad \quad \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} $$

$$ \sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\quad)} $$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa}+\boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{i}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s}=\boldsymbol{n}+\mathbb{k} \wedge$

$\boldsymbol{s}=\boldsymbol{n}+\mathbb{k} \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_{} - 1)!}{(j_{ik} - j_s - 1 + j_s - n_{} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{} - \mathbb{k}_2 - j_{}}{(j^{sa} - j_{ik} - 1 (n_{ik} + j_{} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} 1)!}{(n_{sa} + j_{} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \quad + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa} \quad 1 \wedge j_s \quad {}^{ik}_{sa} \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{} - j^{ik}_{sa} \leq j^{sa} \leq \quad + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_s} \quad j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D > \quad n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j^{i}_{sa} - \quad \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} < j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s} \quad , \mathbb{k}_1, j^{ik}_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j^{i}_{sa}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

GULDUNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-\boldsymbol{l_{ik}}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} \geq n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \leq j_{sa} + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \leq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

GÜLDÜNYA

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} - j_{sa} + 2)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\quad)}
$$

$$
\sum_{n_i = \quad}^{n} \sum_{\quad = \boldsymbol{n} + \quad - j_s + 1)}^{(\quad - j_s + 1)}
$$

$$
\sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{ik} + j_{ik} - \quad - \mathbb{k}_2)}
$$

$$
\sum_{\quad - j_{ik} + 1} \sum_{\quad = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - \quad)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \quad > D - \quad + 1 \wedge$

$2 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s} : \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_i-j_{sa}+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+j_{sa}-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}+j_{sa}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{is}+j_{sa}-j_{ik}-\mathbb{k}_1)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{(l_{ik} + j_{sa} - \boldsymbol{l_{sa}^{ik}} + 1)}
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} -}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{+ j_s - j_{ik}} \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \quad - j_{ik} + 1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l} + \boldsymbol{l_{ik}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$$

$$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} +$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_s$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq$$

$$\boldsymbol{s}: (j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}$$

$$s >$$

$$\mathbb{k}_z: z = 2$$

$$\Rightarrow$$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\boldsymbol{l_{sa}}-\boldsymbol{l_{sa}}-s)!}{(D+\boldsymbol{n}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n}$ $\wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik}$ $\wedge j_s + j_{sa}^{ik} - 1$ $j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik}$ $j^{sa} \leq \boldsymbol{l}$ $j_{sa} - s \wedge$

$\boldsymbol{l_{ik}}$ $j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge$ $+ j_{sa}^{ik}$ $> \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} <$ $\wedge I = \mathbb{k} >$ $\wedge$

$j_{sa} \leq j_{sa}^{i} - 1$ j_{sa}^{ik} $- 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}, \cdots,$ $, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$> 5 \wedge \boldsymbol{s}$ $s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ \ )}\right.$$

GÜLDÜNYA

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\mathbb{k}}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j_{ik}=\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{sa}-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

GÜLDÜNYA

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$$

$$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{j_{ik}, j^{sa}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNYA

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$2\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) \cdot$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)} \sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - \quad)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \right.$$

$$\sum_{\quad = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{\quad - j_{ik} - \mathbb{k}_1} \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \quad - j_{ik} + 1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{\quad} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)} \sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_s} + j_{sa} - \boldsymbol{l} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\quad-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{-1)!}{(n_{sa}+\quad-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l}-1)!}{-j_s-\quad+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\quad-j_{sa}^{ik}+1)!}{+\boldsymbol{l_{ik}}-\quad)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+\quad-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq$ [illegible] $< n \wedge \boldsymbol{l_s} > D$ [illegible] $\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-$ [illegible] $-\boldsymbol{l_{sa}}+$ [illegible] $\leq \boldsymbol{l} \leq D$ [illegible] $\boldsymbol{n}+1 \wedge$

$2 \leq$ [illegible] $\leq j_{ik}-j_{sa}^{ik}+$ [illegible] $\wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-$ [illegible] $\leq j^{sa} \leq$ [illegible] $+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-$ [illegible] $+1 >$ [illegible] $\boldsymbol{sa}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} <$ [illegible] $I=\mathbb{k}>0 \wedge$

$<j^i$ [illegible] $1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>5 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

GÜLDÜNYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} + \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$j_{ik} \geq \boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

GÜLDÜNYA

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )} \right.
$$

GÜLDÜNYA

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{sa}} + \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+\boldsymbol{l_{sa}}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: (j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i})$

$s > \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}\right.$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\quad + j_{sa} - \quad - s)!}{(D + j^{sa} - \boldsymbol{n} - \quad)! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{ik=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_s}+\boldsymbol{n}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-\boldsymbol{l_{ik}}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-\boldsymbol{l_{ik}}-1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}-1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq D-\boldsymbol{n}+1\wedge$

GÜLDÜNYA

$2 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{sa} = j_{sa} + j_{sa} = \sum_{\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_s} + j_{sa}^{ik} - D - 1}^{\boldsymbol{l_s} + j_{sa} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

GÜLDÜNYA

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\left. \frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!} \cdot \right.
$$

$$
\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l}+\boldsymbol{n}-D)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(\quad)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}}^{D-j_{sa}}\sum_{(j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{(\quad+1)}$$

$$\sum_{n_i=\quad}^{n}\sum_{\mathbb{k}\,(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$n_{is}+j_{ik}-\mathbb{k}_1\quad(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)$$

$$\sum_{\quad-j_{ik}+1\quad(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

GÜLDÜNYA

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \geq 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{n} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - \boldsymbol{n} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{sa}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{is}+1)}^{(n_i-j_{is}+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+j_{ik}-j_{ik}+1}^{n_i-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j_{sa}+1)}^{(n_{sa}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

GÜLDÜNYA

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} \leq j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \land$

$s > 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z\colon z = 2 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{\text{[illegible]}} \; \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D\text{[illegible]}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-\text{[illegible]}+2)} \right.
$$

$$
\sum_{j_{ik}=\text{[illegible]}\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{\text{[illegible]}} \; \sum_{(j^{sa}\text{[illegible]}-j_{sa}^{ik})}^{(\text{[illegible]})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}} \; \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+\text{[illegible]}j_{ik}-\mathbb{k}_1} \; \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\right.$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}-j_{sa}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-j_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\quad-1)!\cdot(\boldsymbol{n}-\quad)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\quad-1)!}{-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(+j_{sa}^{ik}-\quad-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\quad)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}$ $1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l}$ $D-\boldsymbol{n}+1$

$2 \leq j$ $\leq j_{ik}-j_{sa}^{ik}$ $\wedge j_s+j_{sa}^{ik}-1$ j_{ik} $j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}$ $j^{sa} \leq \boldsymbol{n}$ $j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}$ $_{sa}^{ik}+1=\boldsymbol{l_s} \wedge$ $+j_{sa}^{ik}$ $_{sa} > \boldsymbol{l_{ik}} \wedge$

$\geq \boldsymbol{n} <$ $\wedge I=\mathbb{k}>$ $\wedge$

$j_{sa} \leq j$ $_{sa}-1 \wedge$ $_{sa}-1 \wedge j_{sa}^{s}<j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}^{s},\cdots,$ $j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$>5 \wedge \boldsymbol{s}$ $s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2) \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - j_{ik})}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \quad < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \quad - \boldsymbol{l_{sa}} \wedge$

$2 \leq \quad < j_{ik} - j_{sa} - 2 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\quad - j^{ik} - 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_{sa} + 1)}^{(n_i - \boldsymbol{n} + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\boldsymbol{n} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \quad - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{\quad - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\quad - j^{sa})!} \cdot$$

$$\frac{- \boldsymbol{l} - 1)!}{(\quad - j_s - \quad + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j \quad \boldsymbol{l} \quad (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j_{}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \geq j_{ik} \leq j^{sa}$ $_{a}^{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1$ $_{a}^{is} < j_{sa}^{ik}-1$

$\boldsymbol{s}$: $\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}$, $\mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}$

s $5 \wedge \boldsymbol{s} =$ $+\mathbb{k} \wedge$

$\mathbb{k}_z$: $= 2 \wedge \mathbb{k} = \mathbb{k}$ $+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\left.\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\right)$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_s}^{(}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}$$

$$\sum_{}^{n}\ \sum_{=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ (n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)$$

$$\sum_{}^{j_s-j_{ik}-\mathbb{k}}\ \sum_{}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{-j_{ik}+1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{i}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}>D-\boldsymbol{n}+1\wedge$$

$$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$$

GÜLDÜNYA

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{[illegible]} = \Bigg(\sum_{[illegible]} \sum_{(j_s [illegible] - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} [illegible]} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg) +$$

GÜLDÜNYA

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{ik}+j_s-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(\quad-j_{ik}-)!\cdot(n_{sa}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l}$ $D-\boldsymbol{n}+1$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1$ $j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}$ $j^{sa} \leq \boldsymbol{n}$ $j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}$ $j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge$ $+j_{sa}^{ik}$ $_{sa} = \boldsymbol{l_{ik}} \wedge$

$\geq \boldsymbol{n} <$ $\wedge I = \mathbb{k} >$ $\wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge$ $_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}^{s}, \cdots,$ $j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$> 5 \wedge$ $s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}$$

GUIDUNYA

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{\left(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}\right)}^{\left(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_{ik}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{l} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

GÜLDÜNYA

$s > 5 \wedge \mathbf{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 2 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\mathbf{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \sum_{j_{ik}=\mathbf{l_{ik}}+\mathbf{n}-D}^{\mathbf{l_s}+j_{sa}^{ik}-\mathbf{l}} \sum_{(j^{sa}=j_{ik}+\mathbf{l_{sa}}-\mathbf{l_{ik}})}^{(\ )} \sum_{n_i=\mathbf{n}+\Bbbk}^{n} \sum_{(n_{is}=\mathbf{n}+\Bbbk-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbf{n}+\Bbbk_2-j_{ik}+1}^{n_{is}-j_{ik}-\Bbbk_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \Bbbk_1)!} \cdot \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \frac{(\mathbf{l_s} - \mathbf{l} - 1)!}{(\mathbf{l_s} - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - \mathbf{l_{sa}} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l_{sa}})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\mathbf{l}} \sum_{(j_s=\mathbf{l_s}+\mathbf{n}-D)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=\mathbf{l_{ik}}+\mathbf{n}-D}^{\mathbf{l_s}+j_{sa}^{ik}-\mathbf{l}} \sum_{(j^{sa}=j_{ik}+\mathbf{l_{sa}}-\mathbf{l_{ik}})}^{(\ )} \sum_{n_i=\mathbf{n}+\Bbbk}^{n} \sum_{(n_{is}=\mathbf{n}+\Bbbk-j_s+1)}^{(n_i-j_s+1)} \right.
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_s-\boldsymbol{l}+1)}\ \sum_{(j_s+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

GÜLDÜNYA

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} -$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{i} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_s} + \boldsymbol{n} - D)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} > D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$2 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{ik}-j_s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}-1 \wedge$

$\boldsymbol{s}: (j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{\cdots}, \cdots, \mathbb{k}_2, j_{sa}^{\cdots}, \cdots, j_{sa}^{i})$

$s > \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2^{\mathbb{k}} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\left.\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\right.$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}\ \sum_{(j_s=\boldsymbol{l_s}+\boldsymbol{n}-D)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}}^{(}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}$$

$$\sum_{}^{n}\ \sum_{}^{(n_i-j_s+1)}$$

$$\sum_{:=\boldsymbol{n}+\mathbb{k}\ (n_{is}=\boldsymbol{n}-\mathbb{k}-j_s+1)}$$

$$\sum_{j_s-j_{ik}-1}^{}\ \sum_{}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{-j_{ik}+1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

GÜLDÜNYA

DİZİN

B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.2.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/230-231
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/187-188
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.2.1/230-231
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/187-188
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.3.1/230-231
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/187-188
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.4.1.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.4.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.4.2.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.4.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.4.3.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.4.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu

GÜLDÜNYA

simetrinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/233

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.1.1.2.1/233

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/233

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.1.6.1/3-4

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.1.6.2.1/3-4

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.1.6.3.1/3-4

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/118

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin durumuna

tek kalan simetrik olasılık, 2.3.3.1.1.2.1/118

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/118

tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.1.1.1/4

tek kalan düzgün simetrik olasılık, 2.3.3.2.2.1.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

GÜLDÜNYA

tek kalan simetrik olasılık, 2.3.3.1.2.1.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.1.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.1.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.1.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.2.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.2.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.2.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.2.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.2.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.2.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.2.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.4.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.4.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.4.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.4.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.4.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.4.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.6.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.6.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.6.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.6.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

GÜLDÜNYA

tek kalan simetrik olasılık, 2.3.3.1.2.6.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.6.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.2.7.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.7.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.7.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.2.7.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.7.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.7.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.2.7.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.7.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.1.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.1.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.2.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.2.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.2.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.2.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.2.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.2.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.2.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin herhangi iki durumuna bağlı

GÜLDÜNYA

tek kalan simetrik olasılık, 2.3.3.1.4.1.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.1.1/5
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin herhangi iki durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.4.1.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.2.1/5
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin herhangi iki durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.4.1.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.3.1/5
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.4.1.1.1/839-840
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.4.1.2.1/839-840
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.4.1.3.1/839-840
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.1.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.1.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.1.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.2.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.1.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.3.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.2.1.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.1.1/10
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.2.2.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.2.1/10
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.2.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.3.1/3-4

GÜDÜMYA

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.1.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.1.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.2.1.1/6

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

GÜLDÜNYA

tek kalan simetrik olasılık, 2.3.3.1.6.2.2.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.2.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.6.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.6.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.6.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.6.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.6.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.6.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.6.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.6.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.6.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.7.1.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.7.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.7.2.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.7.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

GÜLDÜNYA

tek kalan simetrik olasılık, 2.3.3.1.6.7.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.7.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.1.1.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.1.2.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.1.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.2.1.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.2.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.2.2.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.2.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.4.1.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.4.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.4.2.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.4.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.4.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.4.3.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.6.1.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son

GÜDÜNYA

durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.6.2.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.2.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.6.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.3.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.7.1.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.1.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.7.2.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.2.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.7.3.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.3.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.7.1.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.7.1.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.1.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.7.1.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.7.1.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.2.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.7.1.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.7.1.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.3.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.7.2.1.1/7
tek kalan düzgün simetrik olasılık, 2.3.3.2.7.2.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.1.1/10-11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.7.2.2.1/7
tek kalan düzgün simetrik olasılık, 2.3.3.2.7.2.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.2.1/10-11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.7.2.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.7.2.3.1/3-4

GÜDÜMYA

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.1.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.2.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.1.1/9

GÜLDÜNYA

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.1.1/10
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.1.2.1/9
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.2.1/10
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.1.3.1/9
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.3.1/10
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.2.1.1/15-16
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.1.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.2.2.1/15-16
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.2.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.2.3.1/9-10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.3.1/10
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.4.1.1/9
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.1.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.4.2.1/9
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.2.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.4.3.1/9
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.3.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.6.1.1/9
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.1.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.6.2.1/9
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.2.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.6.3.1/9

GÜDÜNYA

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.1.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.3.1/9-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.3.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.3.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.2.1/10

GÜDÜMYA

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.2.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.4.3.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.3.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.6.1.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.1.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.6.2.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.2.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.6.3.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.3.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.7.1.1/17
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.1.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.7.2.1/17
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.2.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.7.3.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.3.1/10-11

GÜDÜNYA

VDOİHİ'de Olasılık ve İhtimal konularının tanım ve eşitlikleri verilmektedir. Ayrıca VDOİHİ'de olasılık ve ihtimalin uygulama alanlarına da yer verilmektedir. VDOİHİ konu anlatım ciltleri ve soru, problem ve ispat çözümlerinden oluşmaktadır. Bu cilt bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz olasılık dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılığın, tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılığın, tanım ve eşitlikleri verilmektedir.

VDOİHİ'nin diğer ciltlerinde olduğu gibi bu ciltte de verilen ana eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden teorik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde dış kaynak kullanılmamıştır.

GÜLDÜNYA