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Connecting to external linux executable...
Connection established.
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General solution

Original basis used for our work

We first consider the basis.

$$\lambda_0 O_0 + \lambda_1 O_1 + \lambda_2 O_2 + \lambda_3 O_3 + \lambda_4 O_4 + \lambda_5 O_5 \tag{1}$$

Here is the general solution.

$$\lambda_2 \to -\frac{\lambda_0 \left(-6+\mathcal{D}+2\,s\right)+\lambda_1 \left(-2+s\,(-3+\mathcal{D}+s)\right)}{(-1+s)\,(-4+\mathcal{D}+s)} \tag{2}$$

$$\lambda_3 \to -\lambda_5 \tag{3}$$

$$\lambda_4 \to \frac{2\,\lambda_0+2\,\lambda_1-\lambda_5\,(-1+s)\,(-4+\mathcal{D}+s)}{2\,(-1+s)\,(-4+\mathcal{D}+s)} \tag{4}$$

Here is the case of "s=1". Note that there are fewer operators than six in the case of "s=1" and "s=2".

$$\lambda_1 \to -\lambda_0 \tag{5}$$

The specific case of "s=3".

$$\lambda_2 \to \frac{\mathcal{D}\,\lambda_0-2\,\lambda_1+3\,\mathcal{D}\,\lambda_1}{2-2\,\mathcal{D}} \tag{6}$$

$$\lambda_5 \to \frac{\lambda_0+\lambda_1-2\,(-1+\mathcal{D})\,(\lambda_3+\lambda_4)}{3\,(-1+\mathcal{D})} \tag{7}$$

Alternative Fronsdal-type basis

Here we define a basis, where the Fronsdal combination and the trace of Fronsdal have their own coefficients. This makes it manifest that these coefficients completely disappear from the system which you provided.

$$\lambda_0 \to \mathcal{F}_1 \tag{8}$$

$$\lambda_1 \to c_1-\mathcal{F}_1 \tag{9}$$

$$\lambda_2 \to c_2+\mathcal{F}_1 \tag{10}$$

$$\lambda_3 \to \mathcal{F}_2 \tag{11}$$

$$\lambda_4 \to \frac{1}{2}\left(2\,c_4+\mathcal{F}_2\right) \tag{12}$$

$$\lambda_5 \to c_5-\mathcal{F}_2 \tag{13}$$

Here is the transformation of the operator sum.

$$c_1 O_1 + c_2 O_2 + \mathcal{F}_1 (O_0 - O_1 + O_2) + c_4 O_4 + \mathcal{F}_2 \left(O_3 + \frac{O_4}{2} - O_5\right) + c_5 O_5 \tag{14}$$

Here is the general solution. Notice how the Fronsdal-type coefficients completely disappear.

$$c_2 \to -\frac{c_1 \left(-2 + s (-3 + \mathcal{D} + s)\right)}{(-1 + s) (-4 + \mathcal{D} + s)} \tag{15}$$

$$c_4 \to \frac{c_1}{(-1 + s) (-4 + \mathcal{D} + s)} \tag{16}$$

$$c_5 \to 0 \tag{17}$$

Here is the case of "s=1". Note that there are fewer operators than six in the case of "s=1" and "s=2".

$$c_1 \to 0 \tag{18}$$

The specific case of "s=3".

$$c_2 \to \frac{c_1 \left(2 - 3 \mathcal{D}\right)}{2 (-1 + \mathcal{D})} \tag{19}$$

$$c_5 \to \frac{1}{3} \left(-2 c_4 + \frac{c_1}{-1 + \mathcal{D}}\right) \tag{20}$$

System coefficients

Here are the coefficients of the system of equations for general spin and dimension.

$$\begin{pmatrix} \frac{2^{-n}\,(-2\,n+s)}{\text{Pochhammer}\left[3-\frac{\mathcal{D}}{2}-s,n\right]} \\ \frac{2^{-1-n}\,(-2\,n+s)\,(2+2\,n\,(-3+\mathcal{D}+s)-s\,(-3+\mathcal{D}+s))\,\text{Gamma}\left[3-\frac{\mathcal{D}}{2}-s\right]}{\text{Gamma}\left[4-\frac{\mathcal{D}}{2}+n-s\right]} \\ -\frac{2^{-1-n}\,(2\,n-s)\,(1+2\,n-s)\,(-4+\mathcal{D}+s)\,\text{Gamma}\left[3-\frac{\mathcal{D}}{2}-s\right]}{\text{Gamma}\left[4-\frac{\mathcal{D}}{2}+n-s\right]} \\ -\frac{2^{1-n}\,n\,(-4+\mathcal{D}+s)\,\text{Gamma}\left[3-\frac{\mathcal{D}}{2}-s\right]}{\text{Gamma}\left[3-\frac{\mathcal{D}}{2}+n-s\right]} \\ -\frac{2^{-n}\,n\,(2\,n-s)\,(-5+\mathcal{D}+s)\,(-4+\mathcal{D}+s)\,\text{Gamma}\left[3-\frac{\mathcal{D}}{2}-s\right]}{\text{Gamma}\left[4-\frac{\mathcal{D}}{2}+n-s\right]} \\ \frac{2^{-1-n}\,n\,(-4+\mathcal{D}+s)\,(-2\,n\,(-3+s)+(-4+s)\,(3+s)+\mathcal{D}\,(2-2\,n+s))\,\text{Gamma}\left[3-\frac{\mathcal{D}}{2}-s\right]}{\text{Gamma}\left[4-\frac{\mathcal{D}}{2}+n-s\right]} \end{pmatrix}$$

Here is a grid of discrete ranks.

Power: Infinite expression $\frac{1}{0}$ encountered.

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First: {} has zero length and no first element.

$$\begin{pmatrix} 0 & 1 & 2 & X & 3 & 3 & 3 & 3 \\ 0 & 1 & 2 & 1 & 2 & 2 & 3 & 3 \\ 0 & 1 & 2 & 2 & 3 & 3 & 3 & 3 \\ 0 & 1 & 2 & 2 & 3 & 3 & 3 & 3 \\ 0 & 1 & 2 & 2 & 3 & 3 & 3 & 3 \\ 0 & 1 & 2 & 2 & 3 & 3 & 3 & 3 \\ 0 & 1 & 2 & 2 & 3 & 3 & 3 & 3 \\ 0 & 1 & 2 & 2 & 3 & 3 & 3 & 3 \end{pmatrix} \tag{22}$$

Key observation: This is the end of the script.