The (possibly singular) a-matrices associated
with the Lagrangian, as defined below Eq. (18) of arXiv:1812.02675:

Matrix for spin-0 sector:

$$\begin{pmatrix} \left(\alpha_1 + \alpha_2\right) k^2 \end{pmatrix}$$

Matrix for spin-1 sector:

$$\begin{pmatrix} \alpha_1 k^2 \end{pmatrix}$$

Gauge constraints on source currents:

The Drazin (Moore-Penrose) inverses of these a-matrices, which are functionally
analogous to the inverse b-matrices described below Eq. (21) of arXiv:1812.02675:

Matrix for spin-0 sector:

$$\begin{pmatrix} \frac{1}{\left(\alpha_1 + \alpha_2\right) k^2} \end{pmatrix}$$

Matrix for spin-1 sector:

$$\begin{pmatrix} \frac{1}{\alpha_1 k^2} \end{pmatrix}$$

Square masses:

{{}, {}, {}, {}}

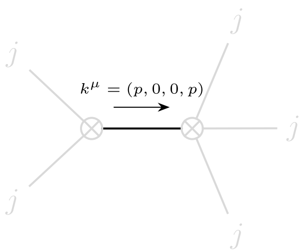
Massive pole residues:

{{}, {}, {}, {}}

Massless eigenvalues:

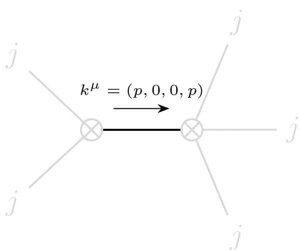
$$\left\{\frac{-2\alpha_1 - \alpha_2}{2\alpha_1\left(\alpha_1 + \alpha_2\right)}, -\frac{1}{\alpha_1}, -\frac{1}{\alpha_1}, \frac{2\alpha_1 + \alpha_2}{2\alpha_1\left(\alpha_1 + \alpha_2\right)}\right\}$$

Overall particle spectrum:



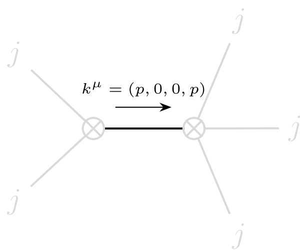
Massless particle

Pole residue:	$-\frac{S}{\alpha P_1} - \frac{S}{\alpha P_1 M \alpha P_2} > 0$
Polarisations:	1



Massless particle

Pole residue:	$-\frac{S}{\alpha P_1} > 0$
Polarisations:	2



Massless particle

Pole residue:	$\frac{S}{\alpha P_1} + \frac{S}{\alpha P_1 M \alpha P_2} > 0$
Polarisations:	1

Overall unitarity conditions:

False