

(No massive particles)

Unitarity conditions

$$\alpha > 0$$

$$\mathcal{B}_{1^+ \alpha \beta}^{\#1} \quad \mathcal{B}_{1^- \alpha}^{\#1}$$

$\mathcal{B}_{1^+ \alpha \beta}^{\#1} + \alpha \beta$	$\frac{\alpha k^2}{3}$	0
$\mathcal{B}_{1^- \alpha}^{\#1} + \alpha$	0	0

Source constraints

SO(3) irreps #

$$\mathcal{J}_{1^- \alpha}^{\#1} = 0 \quad 3$$

$$\text{Total \# :} \quad 3$$

$$\mathcal{J}_{1^+ \alpha \beta}^{\#1} \quad \mathcal{J}_{1^- \alpha}^{\#1}$$

$\mathcal{J}_{1^+ \alpha \beta}^{\#1} + \alpha \beta$	$\frac{3}{\alpha k^2}$	0
$\mathcal{J}_{1^- \alpha}^{\#1} + \alpha$	0	0

Lagrangian density

$$-\frac{2}{3} \alpha \partial_\beta \mathcal{B}_{\alpha \chi} \partial^\chi \mathcal{B}^{\alpha \beta} + \frac{1}{3} \alpha \partial_\chi \mathcal{B}_{\alpha \beta} \partial^\chi \mathcal{B}^{\alpha \beta}$$

$$\text{Added source term: } \mathcal{B}^{\alpha \beta} \mathcal{J}_{\alpha \beta}$$

Quadratic pole

$$\text{Pole residue:} \quad \frac{1}{\alpha} > 0$$

$$\text{Polarisations:} \quad 1$$

