

Lagrangian density

$$\mathcal{B}^\alpha \mathcal{J}_\alpha + \beta \partial_\alpha \mathcal{B}^\alpha \partial_\beta \mathcal{B}^\beta + \alpha \partial_\beta \mathcal{B}_\alpha \partial^\beta \mathcal{B}^\alpha$$

$$\mathcal{B}_{0+}^{\#1} + \boxed{(\alpha + \beta) k^2} \mathcal{B}_{0+}^{\#1}$$

$$\mathcal{J}_{0+}^{\#1} + \boxed{\frac{1}{(\alpha + \beta) k^2}} \mathcal{J}_{0+}^{\#1}$$

$$\mathcal{B}_{1-}^{\#1} + \alpha \boxed{k^2} \mathcal{B}_{1-}^{\#1}$$

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

(No source constraints)

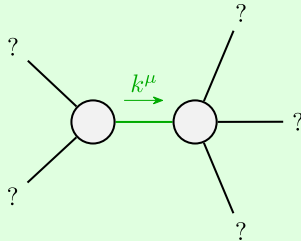
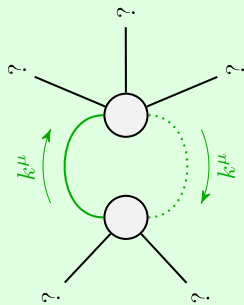
Quartic pole

Pole residue:

Polarisations:

$$0 < -\frac{\beta}{\alpha(\alpha+\beta)} \&\& -\frac{\beta}{\alpha(\alpha+\beta)} > 0$$

$$1$$

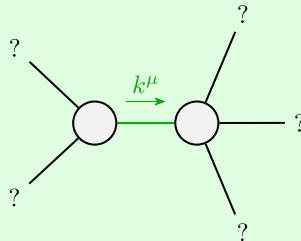


Quadratic pole

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

$$\text{Polarisations: } 2$$

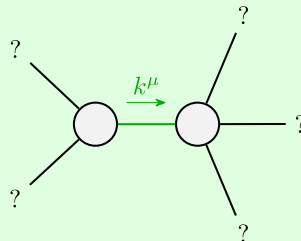
(No massive particles)



Quadratic pole

$$\text{Pole residue: } -\frac{1}{\alpha} - \frac{1}{\alpha+\beta} > 0$$

$$\text{Polarisations: } 1$$



Quadratic pole

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

$$\text{Polarisations: } 1$$

Unitarity conditions

(Unitarity is demonstrably impossible)