

Lagrangian density

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

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

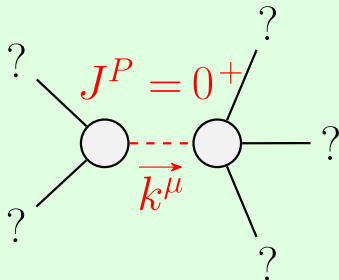
$$\mathcal{J}_{1-}^{\#1} + \alpha \left[ \frac{1}{\gamma} \right]_{\mathcal{J}_{1-}^{\#1} \alpha}$$

$$\mathcal{B}_{1-}^{\#1} + \alpha \left[ \gamma \right]_{\mathcal{B}_{1-}^{\#1} \alpha}$$

$$\mathcal{J}_{0+}^{\#1} + \left[ \frac{1}{\gamma + \beta k^2} \right]_{\mathcal{J}_{0+}^{\#1}}$$

$$\mathcal{B}_{0+}^{\#1} + \left[ \gamma + \beta k^2 \right]_{\mathcal{B}_{0+}^{\#1}}$$

(No source constraints)



Massive particle

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

Polarisations: 1

Square mass:  $-\frac{\gamma}{\beta} > 0$

Spin: 0

Parity: Even

Unitarity conditions  
 $\beta > 0 \ \&\& \ \gamma < 0$

(No massless particles)