

Lagrangian density

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

(No source constraints)

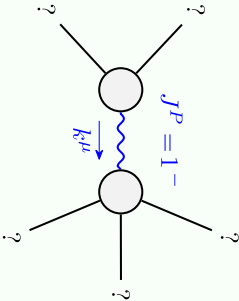
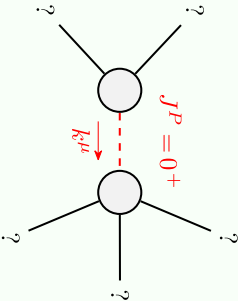
$\mathcal{B}_{0+}^{\#1} + \gamma + (\alpha + \beta) k^2$

 $\mathcal{B}_{0+}^{\#1}$

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

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

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



(No massless particles)

| Massive particle |                                      |
|------------------|--------------------------------------|
| Pole residue:    | $\frac{1}{\alpha + \beta} > 0$       |
| Polarisations:   | 1                                    |
| Square mass:     | $-\frac{\gamma}{\alpha + \beta} > 0$ |
| Spin:            | 0                                    |
| Parity:          | Even                                 |

| Massive particle |                              |
|------------------|------------------------------|
| Pole residue:    | $-\frac{1}{\alpha} > 0$      |
| Polarisations:   | 3                            |
| Square mass:     | $-\frac{\gamma}{\alpha} > 0$ |
| Spin:            | 1                            |
| Parity:          | Odd                          |

(Unitarity is demonstrably impossible)