Lagrangian density

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

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

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

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

(No source constraints)

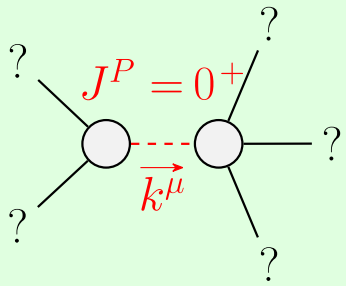
$$\mathcal{J}^{\#1}_{0^+} \dagger \boxed{\frac{1}{\gamma + (\alpha+\beta)\, k^2}}$$

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

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

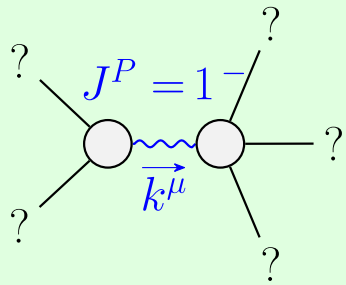
$$\mathcal{J}^{\#1}_{1^-} \dagger^\alpha \boxed{\frac{1}{\gamma + \alpha\, k^2}}$$

$\mathcal{J}^{\#1}_{1^-\,\alpha}$



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 conditions

(Unitarity is demonstrably impossible)

(No massless particles)