

# Lagrangian density

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

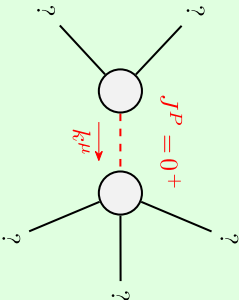
(No source constraints)

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

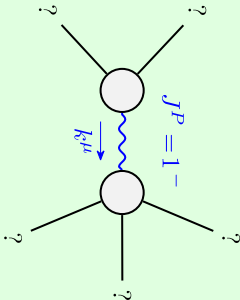
$$\mathcal{J}^{\#1}_{0+} + \boxed{\frac{1}{\gamma + (\alpha + \beta) k^2}} \mathcal{J}^{\#1}_{0+}$$

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

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



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

(No massless particles)

## Unitarity conditions

(Unitarity is demonstrably impossible)