

Lagrangian density

$$\beta \, h_{\alpha\beta} \, h^{\alpha\beta} - \beta \, h^\alpha{}_\alpha \, h^\beta{}_\beta + h^{\alpha\beta} \, \mathcal{T}_{\alpha\beta} + \frac{1}{2} \, \alpha \, \partial_\beta h^\chi{}_\chi \, \partial^\beta h^\alpha{}_\alpha +$$

$$\alpha \, \partial_\alpha h^{\alpha\beta} \, \partial_\chi h_\beta{}^\chi - \alpha \, \partial^\beta h^\alpha{}_\alpha \, \partial_\chi h_\beta{}^\chi - \frac{1}{2} \, \alpha \, \partial_\chi h_{\alpha\beta} \, \partial^\chi h^{\alpha\beta}$$

$$\begin{array}{cc} h_{0+}^{\#1} & h_{0+}^{\#2} \\ \begin{array}{|c|c|} \hline -2\beta + \alpha k^2 & -\sqrt{3}\beta \\ \hline -\sqrt{3}\beta & 0 \\ \hline \end{array} \end{array}$$

$$\begin{array}{cc} \mathcal{T}_{0+}^{\#1} & \mathcal{T}_{0+}^{\#2} \\ \begin{array}{|c|c|} \hline 0 & -\frac{1}{\sqrt{3}\beta} \\ \hline -\frac{1}{\sqrt{3}\beta} & \frac{2\beta\alpha k^2}{3\beta^2} \\ \hline \end{array} \end{array}$$

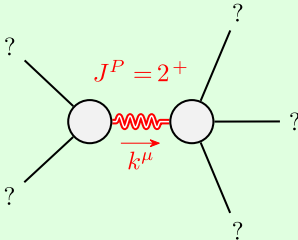
$$\begin{array}{c} \mathcal{T}_{2+}^{\#1} + \alpha\beta \\ \boxed{\frac{1}{\beta} \frac{\alpha k^2}{2}} \end{array}$$

$$\begin{array}{c} h_{2+}^{\#1} + \alpha\beta \\ \boxed{\beta - \frac{\alpha k^2}{2}} \end{array}$$

$$\mathcal{T}_{1-}^{\#1} + \alpha \, \boxed{\frac{1}{\beta}}$$

$$h_{1-}^{\#1} + \alpha \, \boxed{\beta}$$

(No source constraints)



Massive particle	
Pole residue:	$-\frac{2}{\alpha} > 0$
Polarisations:	5
Square mass:	$\frac{2\beta}{\alpha} > 0$
Spin:	2
Parity:	Even

$$\frac{\alpha < 0 \ \&\& \ \beta < 0}{\text{Unitarity conditions}}$$

(No massless particles)