

Lagrangian density

$$-\alpha \partial_\beta \partial_\alpha h^{\alpha\beta} \partial_\delta \partial_\chi h^{X\delta} + 2 \alpha \partial_\beta \partial^\beta h^\alpha_\alpha \partial_\delta \partial_\chi h^{X\delta} - \alpha \partial_\beta \partial^\beta h^\alpha_\alpha \partial_\delta \partial^\delta h^X_X$$

Added source term:  $h^{\alpha\beta} \mathcal{T}_{\alpha\beta}$

Source constraints

SO(3) irreps	#
$\mathcal{T}_0^{\#2} == 0$	1
$\mathcal{T}_1^{\#1\alpha} == 0$	3
$\mathcal{T}_2^{\#1\alpha\beta} == 0$	5
Total #:	9

Unitarity conditions

True

(No massless particles)

(No massive particles)

$$\mathcal{T}_{1^-}^{\#1} \dagger^\alpha \mathcal{T}_{1^-}^{\#1\alpha}$$

$$h_{1^-}^{\#1} \dagger^\alpha h_{1^-}^{\#1\alpha}$$

$$h_{2^+}^{\#1} \dagger^{\alpha\beta} h_{2^+}^{\#1\alpha\beta}$$

$$\mathcal{T}_{2^+}^{\#1} \dagger^{\alpha\beta} \mathcal{T}_{2^+}^{\#1\alpha\beta}$$

$$\begin{array}{l} h_{0^+}^{\#1} \dagger \\ h_{0^+}^{\#2} \dagger \end{array} \begin{array}{|c|c|} \hline -3\alpha k^4 & 0 \\ \hline 0 & 0 \\ \hline \end{array}$$

$$\begin{array}{l} \mathcal{T}_{0^+}^{\#1} \dagger \\ \mathcal{T}_{0^+}^{\#2} \dagger \end{array} \begin{array}{|c|c|} \hline -\frac{1}{3\alpha k^4} & 0 \\ \hline 0 & 0 \\ \hline \end{array}$$