

Lagrangian density

$$\beta h_{\alpha\beta} h^{\alpha\beta} - \gamma h^\alpha_\alpha h^\beta_\beta +$$
$$\frac{1}{2} \alpha \partial_\beta h^\chi_\chi \partial^\beta h^\alpha_\alpha + \alpha \partial_\alpha h^{\alpha\beta} \partial_\chi h^\chi_\beta -$$
$$\alpha \partial^\beta h^\alpha_\alpha \partial_\chi h^\chi_\beta - \frac{1}{2} \alpha \partial_\chi h_{\alpha\beta} \partial^\chi h^{\alpha\beta}$$

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

$h^{\#1}_{0+}$ $h^{\#2}_{0+}$

$h^{\#1}_{0+} +$	$\beta - 3\gamma + \alpha k^2$	$-\sqrt{3}\gamma$
$h^{\#2}_{0+} +$	$-\sqrt{3}\gamma$	$\beta - \gamma$

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

$\frac{1}{\beta - \frac{\alpha k^2}{2}}$
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$\mathcal{T}^{\#1}_{0+} +$ $\mathcal{T}^{\#2}_{0+}$

$\frac{1}{\beta(\beta-4\gamma) + \alpha k^2}$	$\frac{\sqrt{3}\gamma}{\beta(\beta-4\gamma) + \alpha(\beta-\gamma)k^2}$
$\frac{\sqrt{3}\gamma}{\beta(\beta-4\gamma) + \alpha(\beta-\gamma)k^2}$	$\frac{1}{\beta + \gamma(-1 - \frac{3\gamma}{\beta-3\gamma + \alpha k^2})}$

$h^{\#1}_{2+} + \alpha\beta$

$\beta - \frac{\alpha k^2}{2}$

$h^{\#1}_{1-} + \alpha$

β

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

$\frac{1}{\beta}$

(No source constraints)

Massive particle	
Pole residue:	$\frac{\beta^2 - 2\beta\gamma + 4\gamma^2}{\alpha(\beta-\gamma)^2} > 0$
Polarisations:	1
Square mass:	$-\frac{\beta(\beta-4\gamma)}{\alpha(\beta-\gamma)} > 0$
Spin:	0
Parity:	Even

(No massless particles)

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

Unitarity conditions
Unitarity is demonstrably impossible)