

## Lagrangian density

$$\beta h_{\alpha\beta} h^{\alpha\beta} - \beta h^\alpha_\alpha h^\beta_\beta +$$

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

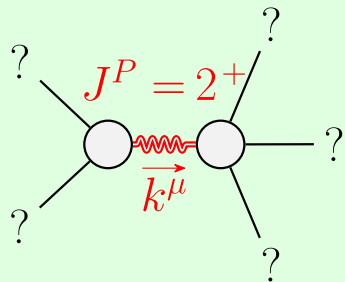
$$\alpha \partial^\beta h^\alpha_\alpha \partial_\chi h^\chi_\beta - \frac{1}{2} \alpha \partial_\chi h_{\alpha\beta} \partial^\chi h^{\alpha\beta}$$

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

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(No source constraints)



Massive particle

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

$h_{0+}^{\#1} +$	$h_{0+}^{\#2}$
$h_{0+}^{\#1} +$	$h_{0+}^{\#2}$
$h_{0+}^{\#2} +$	$h_{0+}^{\#2}$
$h_{0+}^{\#2} +$	$h_{0+}^{\#2}$

$\mathcal{T}_{0+}^{\#1} +$	$\mathcal{T}_{0+}^{\#2}$
$\mathcal{T}_{0+}^{\#1} +$	$\mathcal{T}_{0+}^{\#2}$
$\mathcal{T}_{0+}^{\#2} +$	$\mathcal{T}_{0+}^{\#2}$
$\mathcal{T}_{0+}^{\#2} +$	$\mathcal{T}_{0+}^{\#2}$

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

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

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

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

(No massless particles)

Unitarity conditions

$$\alpha < 0 \ \&\& \ \beta < 0$$