

Lagrangian density

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

Source constraints	SO(3) irreps	#
$\mathcal{T}_{0+}^{\#2} == 0$		1
$\mathcal{T}_{1-}^{\#1\alpha} == 0$		3
Total #:		4

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

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

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

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

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

0

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

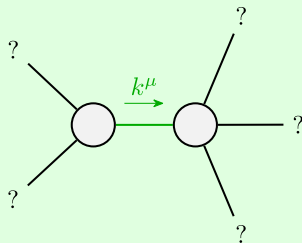
$-\frac{2}{\alpha k^2}$

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

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

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

0



Quadratic pole

Pole residue: $-\frac{1}{\alpha} > 0$

Polarisations: 2

Unitarity conditions
 $\alpha < 0$

(No massive particles)