Lagrangian density

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

Source constraints

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

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

$h^{\#1}_{0^+}\,\dagger$	$4\,\alpha\,k^2$	$\sqrt{3}\,\alpha\,k^2$
$h^{\#2}_{0^+}\,\dagger$	$\sqrt{3}\,\alpha\,k^2$	0

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

$\mathcal{T}^{\#1}_{0^+}\,\dagger$	0	$\frac{1}{\sqrt{3}\,\alpha k^2}$
$\mathcal{T}^{\#2}_{0^+}\,\dagger$	$\frac{1}{\sqrt{3}\,\alpha k^2}$	$-\frac{4}{3\,\alpha k^2}$

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

$\mathcal{T}^{\#1}_{1^-}{}^{\alpha}\,\dagger$	0

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

$h^{\#1}_{1^-}{}^{\alpha}\,\dagger$	0

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

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

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

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

Quadratic pole

Pole residue:	$\frac{1}{\alpha} > 0$
Polarisations:	3

(No massive particles)

Unitarity conditions

$\alpha > 0$