

Particle spectrograph

Wave operator and propagator

$$h_{1-}^{\#1} + \alpha \begin{bmatrix} 0 \end{bmatrix}$$

$$\mathcal{T}_{1-}^{\#1} + \alpha \begin{bmatrix} 0 \end{bmatrix}$$

$$h_{2+}^{\#1} + \alpha\beta \begin{bmatrix} 0 \end{bmatrix}$$

$$\mathcal{T}_{2+}^{\#1} + \alpha\beta \begin{bmatrix} 0 \end{bmatrix}$$

$$\mathcal{T}_{0+}^{\#1} + \mathcal{T}_{0+}^{\#2} \begin{bmatrix} -\frac{1}{3\alpha k^4} & 0 \\ 0 & 0 \end{bmatrix}$$

$$h_{0+}^{\#1} + h_{0+}^{\#2} \begin{bmatrix} -3\alpha k^4 & 0 \\ 0 & 0 \end{bmatrix}$$

Source constraints/gauge generators		Multiplicities
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 constraints:	9	

Quadratic (free) Lagrangian density

$$h^{\alpha\beta} \mathcal{T}_{\alpha\beta} - \alpha \partial_\beta \partial_\alpha h^{\alpha\beta} \partial_\delta \partial_\chi h^{\chi\delta} + 2 \alpha \partial_\beta \partial^\beta h^\alpha_\alpha \partial_\delta \partial_\chi h^{\chi\delta} - \alpha \partial_\beta \partial^\beta h^\alpha_\alpha \partial_\delta \partial^\delta h^\chi_\chi$$

Massive and massless spectra

(No massless particles)

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Unitarity conditions

True