PSALTer results panel

$$\mathcal{S} == \iiiint \left(h^{\alpha\beta}\, \mathcal{T}_{\alpha\beta} + \frac{1}{2}\, \alpha_{2}\, \partial_{\beta} h^{\chi}{}_{\chi}\, \partial^{\beta} h^{\alpha}{}_{\alpha} + \alpha_{1} \left(\partial_{\alpha} h^{\alpha\beta}\, \partial_{\chi} h_{\beta}{}^{\chi} - \partial^{\beta} h^{\alpha}{}_{\alpha}\, \partial_{\chi} h_{\beta}{}^{\chi} - \frac{1}{2}\, \partial_{\chi} h_{\alpha\beta}\, \partial^{\chi} h^{\alpha\beta} \right) \right)[t, x, y, z]\, dz\, dy\, dx\, dt$$

Wave operator

$$\begin{array}{c|cc} & {}^{0^+}h^{\perp} & {}^{0^+}h^{\parallel} \\ \hline {}^{0^+}h^{\perp}\dagger & \frac{1}{2}(-\alpha_{1} + \alpha_{2})k^2 & \frac{1}{2}\sqrt{3}\,(-\alpha_{1} + \alpha_{2})k^2 \\ {}^{0^+}h^{\parallel}\dagger & \frac{1}{2}\sqrt{3}\,(-\alpha_{1} + \alpha_{2})k^2 & -\frac{1}{2}(\alpha_{1} - 3\,\alpha_{2})k^2 \end{array}$$

$$\begin{array}{c|c} & {}^{1^-}h^{\perp}{}_{\alpha} \\ \hline {}^{1^-}h^{\perp}\dagger^{\alpha} & 0 \end{array}$$

$$\begin{array}{c|c} & {}^{2^+}h^{\parallel}{}_{\alpha\beta} \\ \hline {}^{2^+}h^{\parallel}\dagger^{\alpha\beta} & -\frac{\alpha_{1}\, k^2}{2} \end{array}$$

Saturated propagator

$$\begin{array}{c|cc} & {}^{0^+}\mathcal{T}^{\perp} & {}^{0^+}\mathcal{T}^{\parallel} \\ \hline {}^{0^+}\mathcal{T}^{\perp}\dagger & \frac{\alpha_{1} - 3\,\alpha_{2}}{\alpha_{1}(\alpha_{1} - \alpha_{2})k^2} & -\frac{\sqrt{3}}{\alpha_{1}\, k^2} \\ {}^{0^+}\mathcal{T}^{\parallel}\dagger & -\frac{\sqrt{3}}{\alpha_{1}\, k^2} & \frac{1}{\alpha_{1}\, k^2} \end{array}$$

$$\begin{array}{c|c} & {}^{1^-}\mathcal{T}^{\perp}{}_{\alpha} \\ \hline {}^{1^-}\mathcal{T}^{\perp}\dagger^{\alpha} & 0 \end{array}$$

$$\begin{array}{c|c} & {}^{2^+}\mathcal{T}^{\parallel}{}_{\alpha\beta} \\ \hline {}^{2^+}\mathcal{T}^{\parallel}\dagger^{\alpha\beta} & -\frac{2}{\alpha_{1}\, k^2} \end{array}$$

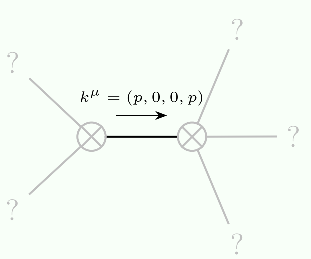
Source constraints

Spin-parity form	Covariant form	Multiplicities
${}^{1^-}\mathcal{T}^{\perp\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{T}^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta}\mathcal{T}^{\alpha\beta}$	3
Total expected gauge generators:		3

Massive spectrum

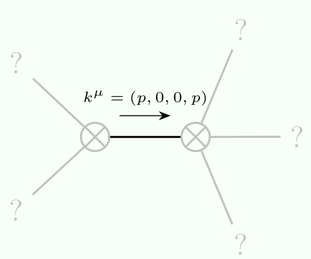
(No particles)

Massless spectrum



Massless particle

Pole residue:	$\frac{p^2}{-\alpha_{1} + \alpha_{2}} > 0$
Polarisations:	1



Massless particle

Pole residue:	$-\frac{p^2}{\alpha_{1}} > 0$
Polarisations:	2

Unitarity conditions

$\alpha_{1} < 0\ \&\&\ \alpha_{2} > \alpha_{1}$