PSALTer results panel

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

Wave operator

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

Saturated propagator

$$\begin{array}{c|cccc}
 & {}^{0^+}_{\bullet}\mathcal{T}^{\perp} & {}^{0^+}_{\bullet}\mathcal{T}^{\parallel} & {}^{1^-}_{\bullet}\mathcal{T}^{\perp}{}_{\alpha} & {}^{2^+}_{\bullet}\mathcal{T}^{\parallel}{}_{\alpha\beta} \\
\hline
{}^{0^+}_{\bullet}\mathcal{T}^{\perp}\,\dagger & \frac{4\,\alpha_{1}}{(\alpha_{1}-\alpha_{2})(\alpha_{1}+3\,\alpha_{2})\,k^{2}} & -\frac{2\sqrt{3}}{(\alpha_{1}+3\,\alpha_{2})\,k^{2}} & & \\
{}^{0^+}_{\bullet}\mathcal{T}^{\parallel}\,\dagger & -\frac{2\sqrt{3}}{(\alpha_{1}+3\,\alpha_{2})\,k^{2}} & \frac{4}{(\alpha_{1}+3\,\alpha_{2})\,k^{2}} & & \\
{}^{1^-}_{\bullet}\mathcal{T}^{\perp}\,\dagger^{\alpha} & & & 0 & \\
{}^{2^+}_{\bullet}\mathcal{T}^{\parallel}\,\dagger^{\alpha\beta} & & & & -\frac{2}{\alpha_{1}\,k^{2}}
\end{array}$$

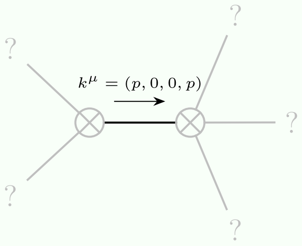
Source constraints

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

Massive spectrum

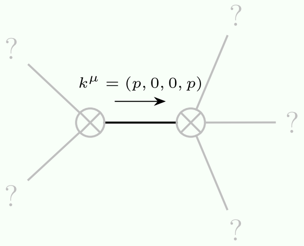
(No particles)

Massless spectrum



Massless particle

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



Massless particle

Pole residue:	$\frac{(\alpha_{1}^{2}-2\,\alpha_{1}\,\alpha_{2}+5\,\alpha_{2}^{2})\,p^{2}}{\alpha_{1}\,(\alpha_{1}-\alpha_{2})\,(\alpha_{1}+3\,\alpha_{2})} > 0$
Polarisations:	1

Unitarity conditions

$$\alpha_{1} < 0\ \&\&\ \left(\alpha_{2} < \alpha_{1}\ \|\ \alpha_{2} > -\frac{\alpha_{1}}{3}\right)$$