PSALTer results panel

$$\mathcal{S} == \int\int\int\int \Big(\rho\,\varphi + h^{\alpha\beta}\,\mathcal{T}_{\alpha\beta} + \frac{1}{2}\,\alpha_{\cdot 2}\,\partial_\alpha\varphi\,\partial^\alpha\varphi + \frac{1}{8}\,\alpha_{\cdot 1}\Big(36\,(1+2\,\varphi)\,\partial_\alpha\partial^\alpha\varphi - 12\,\partial_\alpha h^\beta{}_\beta\,\partial^\alpha\varphi + 18\,\partial_\alpha\varphi\,\partial^\alpha\varphi + 12\,\partial^\alpha\varphi\,\partial_\beta h_\alpha{}^\beta - 4\,\partial_\beta\partial_\alpha h^{\alpha\beta} + 4\,\partial_\beta\partial^\beta h^\alpha{}_\alpha - \partial_\beta h^\chi{}_\chi\,\partial^\beta h^\alpha{}_\alpha + 2\,\partial^\beta h^\alpha{}_\alpha\,\partial_\chi h_\beta{}^\chi - 2\,\partial_\beta h_{\alpha\chi}\,\partial^\chi h^{\alpha\beta} + \partial_\chi h_{\alpha\beta}\,\partial^\chi h^{\alpha\beta}\Big) + \frac{\alpha_{\cdot 5}}{}\Big(-6\,\partial_\beta\partial_\alpha h^\chi{}_\chi\,\partial^\beta\partial^\alpha\varphi - 18\,\partial_\beta\partial_\alpha\varphi\,\partial^\beta\partial^\alpha\varphi + 6\,\partial^\beta\partial^\alpha\varphi\,\partial_\chi\partial_\alpha h_\beta{}^\chi + 6\,\partial^\beta\partial^\alpha\varphi\,\partial_\chi\partial_\beta h_\alpha{}^\chi - 6\,\partial^\beta\partial^\alpha\varphi\,\partial_\chi\partial^\chi h_{\alpha\beta} + 6\,\partial_\alpha\partial^\alpha\varphi\Big(3\,\partial_\beta\partial^\beta\varphi - \partial_\chi\partial_\beta h^{\beta\chi} + \partial_\chi\partial^\chi h^\beta{}_\beta\Big) - \partial_\chi\partial_\beta h^\delta{}_\delta\,\partial^\chi\partial^\beta h^\alpha{}_\alpha - 2\,\partial^\chi\partial_\alpha h^{\alpha\beta}\,\partial_\delta\partial_\beta h_\chi{}^\delta - 2\,\partial^\chi\partial_\alpha h^{\alpha\beta}\,\partial_\delta\partial_\chi h_\beta{}^\delta + 4\,\partial^\chi\partial^\beta h^\alpha{}_\alpha\,\partial_\delta\partial_\chi h_\beta{}^\delta + \partial_\beta\partial_\alpha h^{\alpha\beta}\,\partial_\delta\partial_\chi h^{\chi\delta} - 2\,\partial_\beta\partial^\beta h^\alpha{}_\alpha\,\partial_\delta\partial_\chi h^{\chi\delta} - \partial_\chi\partial^\chi h^{\alpha\beta}\,\partial_\delta\partial^\delta h_{\alpha\beta} + 4\,\partial^\chi\partial_\alpha h^{\alpha\beta}\,\partial_\delta\partial^\delta h_{\beta\chi} - 2\,\partial^\chi\partial^\beta h^\alpha{}_\alpha\,\partial_\delta\partial^\delta h_{\beta\chi} + \partial_\beta\partial^\beta h^\alpha{}_\alpha\,\partial_\delta\partial^\delta h^\chi{}_\chi + \partial_\beta\partial_\alpha h_{\chi\delta}\,\partial^\delta\partial^\chi h^{\alpha\beta} - \partial_\chi\partial_\beta h_{\alpha\delta}\,\partial^\delta\partial^\chi h^{\alpha\beta} - \partial_\delta\partial_\beta h_{\alpha\chi}\,\partial^\delta\partial^\chi h^{\alpha\beta} + \partial_\delta\partial_\chi h_{\alpha\beta}\,\partial^\delta\partial^\chi h^{\alpha\beta}\Big)\Big)[t,\,x,\,y,\,z]\,dl z\,dl y\,dl x\,dl t$$

Wave operator

	$\overset{0^+}{\cdot}\varphi$	$\overset{0^+}{\cdot}h^\perp$	$\overset{0^+}{\cdot}h^\parallel$	$\overset{1^-}{\cdot}h^\perp{}_\alpha$	$\overset{2^+}{\cdot}h^\parallel{}_{\alpha\beta}$
$\overset{0^+}{\cdot}\varphi\,\dagger$	$\frac{1}{4}\left(9\,\alpha_{\cdot 1} + 2\,\alpha_{\cdot 2}\right)k^2$	0	$-\frac{3}{4}\sqrt{3}\,\alpha_{\cdot 1}\,k^2$		
$\overset{0^+}{\cdot}h^\perp\,\dagger$	0	0	0		
$\overset{0^+}{\cdot}h^\parallel\,\dagger$	$-\frac{3}{4}\sqrt{3}\,\alpha_{\cdot 1}\,k^2$	0	$-\frac{\alpha_{\cdot 1}\,k^2}{4}$		
$\overset{1^-}{\cdot}h^\perp\,\dagger^\alpha$				0	
$\overset{2^+}{\cdot}h^\parallel\,\dagger^{\alpha\beta}$					$\frac{\alpha_{\cdot 1}\,k^2}{8}$

Saturated propagator

	$\overset{0^+}{\cdot}\rho$	$\overset{0^+}{\cdot}\mathcal{T}^\perp$	$\overset{0^+}{\cdot}\mathcal{T}^\parallel$	$\overset{1^-}{\cdot}\mathcal{T}^\perp{}_\alpha$	$\overset{2^+}{\cdot}\mathcal{T}^\parallel{}_{\alpha\beta}$
$\overset{0^+}{\cdot}\rho\,\dagger$	$\frac{2}{\left(18\,\alpha_{\cdot 1}+\alpha_{\cdot 2}\right)k^2}$	0	$-\frac{6\sqrt{3}}{\left(18\,\alpha_{\cdot 1}+\alpha_{\cdot 2}\right)k^2}$		
$\overset{0^+}{\cdot}\mathcal{T}^\perp\,\dagger$	0	0	0		
$\overset{0^+}{\cdot}\mathcal{T}^\parallel\,\dagger$	$-\frac{6\sqrt{3}}{\left(18\,\alpha_{\cdot 1}+\alpha_{\cdot 2}\right)k^2}$	0	$-\frac{2\left(9\,\alpha_{\cdot 1}+2\,\alpha_{\cdot 2}\right)}{\alpha_{\cdot 1}\left(18\,\alpha_{\cdot 1}+\alpha_{\cdot 2}\right)k^2}$		
$\overset{1^-}{\cdot}\mathcal{T}^\perp\,\dagger^\alpha$				0	
$\overset{2^+}{\cdot}\mathcal{T}^\parallel\,\dagger^{\alpha\beta}$					$\frac{8}{\alpha_{\cdot 1}\,k^2}$

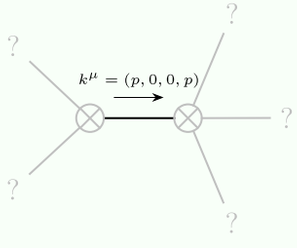
Source constraints

Spin-parity form	Covariant form	Multiplicities
$\overset{0^+}{\cdot}\mathcal{T}^\perp == 0$	$\partial_\beta\partial_\alpha\mathcal{T}^{\alpha\beta} == 0$	1
$\overset{1^-}{\cdot}\mathcal{T}^\perp{}^\alpha == 0$	$\partial_\chi\partial_\beta\partial^\alpha\mathcal{T}^{\beta\chi} == \partial_\chi\partial^\chi\partial_\beta\mathcal{T}^{\alpha\beta}$	3
Total expected gauge generators:		4

Massive spectrum

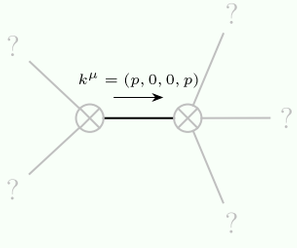
(No particles)

Massless spectrum



Massless particle

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



Massless particle

Pole residue:	$\frac{1+18\,p^2}{18\,\alpha_{\cdot 1}+\alpha_{\cdot 2}} > 0$
Polarisations:	1

Unitarity conditions

$$\alpha_{\cdot 1} > 0 \;\&\&\; \alpha_{\cdot 2} > -18\,\alpha_{\cdot 1}$$