PSALTer results panel

$$\mathcal{S} == \int\int\int\int (\rho\,\varphi + h^{\alpha\beta}\,\mathcal{T}_{\alpha\beta} + \frac{1}{2}\,\alpha_{.}{}_{2}\,\partial_\alpha\varphi\,\partial^\alpha\varphi + \frac{1}{8}\,\alpha_{.}{}_{1}\,(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}) + \alpha_{.}{}_{5}\,(-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\,(3\,\partial_\beta\partial^\beta\varphi - \partial_\chi\partial_\beta h^{\beta\chi} + \partial_\chi\partial^\chi h^\beta{}_\beta) - \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}))[t, x, y, z]\,dz\,dy\,dx\,dt$$

Wave operator

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

Saturated propagator

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

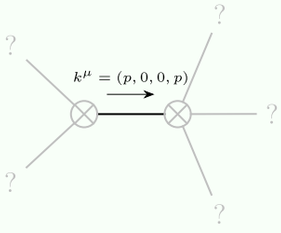
Source constraints

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

Massive spectrum

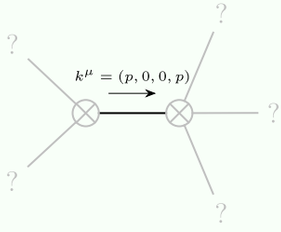
(No particles)

Massless spectrum



Massless particle

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



Massless particle

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

Unitarity conditions

$\alpha_{.}{}_{1} > 0$ && $\alpha_{.}{}_{2} > -18\,\alpha_{.}{}_{1}$