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\varphi\,\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]\,dt\,dx\,dy\,dz$$

Wave operator

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

Saturated propagator

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

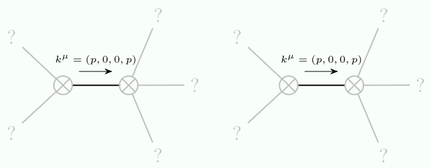
Source constraints

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

Massive spectrum

(No particles)

Massless spectrum



Massless particle

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

Massless particle

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

Unitarity conditions

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