PSALTer results panel

$$S == \int\int\int\int \Big(\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}\ \Big(24\ (1+\varphi)\ \partial_\alpha\partial^\alpha\varphi - 8\ \partial_\alpha h^{\beta}{}_{\beta}\ \partial^\alpha\varphi + 8\ \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) + \alpha_{5}\ \Big(-4\ \partial_\beta\partial_\alpha h^{\chi}{}_{\chi}\ \partial^\beta\partial^\alpha\varphi - 8\ \partial_\beta\partial_\alpha\varphi\ \partial^\beta\partial^\alpha\varphi + 4\ \partial^\beta\partial^\alpha\varphi\ \partial_\chi\partial_\alpha h_{\beta}{}^{\chi} + 4\ \partial^\beta\partial^\alpha\varphi\ \partial_\chi\partial_\beta h_{\alpha}{}^{\chi} - 4\ \partial^\beta\partial^\alpha\varphi\ \partial_\chi\partial^\chi h_{\alpha\beta} + 4\ \partial_\alpha\partial^\alpha\varphi\ \Big(2\ \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

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

Saturated propagator

	$\overset{0^+}{\cdot}\rho$	$\overset{0^+}{\cdot}\mathcal{T}^{\perp}$	$\overset{0^+}{\cdot}\mathcal{T}^{\parallel}$	$\overset{1^-}{\cdot}\mathcal{T}^{\perp}{}_{\alpha}$	$\overset{2^+}{\cdot}\mathcal{T}^{\parallel}{}_{\alpha\beta}$
$\overset{0^+}{\cdot}\rho\,\dagger$	$\frac{2}{\left(6\ \alpha_{1}+\alpha_{2}\right)k^2}$	0	$-\frac{4\ \sqrt{3}}{\left(6\ \alpha_{1}+\alpha_{2}\right)k^2}$		
$\overset{0^+}{\cdot}\mathcal{T}^{\perp}\,\dagger$	0	0	0		
$\overset{0^+}{\cdot}\mathcal{T}^{\parallel}\,\dagger$	$-\frac{4\ \sqrt{3}}{\left(6\ \alpha_{1}+\alpha_{2}\right)k^2}$	0	$-\frac{4\ \alpha_{2}}{\alpha_{1}\left(6\ \alpha_{1}+\alpha_{2}\right)k^2}$		
$\overset{1^-}{\cdot}\mathcal{T}^{\perp}\,\dagger^{\alpha}$				0	
$\overset{2^+}{\cdot}\mathcal{T}^{\parallel}\,\dagger^{\alpha\beta}$					$\frac{8}{\alpha_{1}\ k^2}$

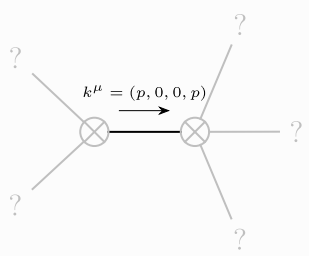
Source constraints

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

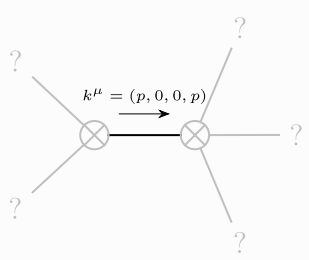
(There are no massive particles)

Massless spectrum



Massless particle

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



Massless particle

Pole residue:	$\frac{1+8\,p^2}{6\,\alpha_{1}+\alpha_{2}} > 0$
Polarisations:	1

Gauge symmetries

(Not yet implemented in PSALTer)

Unitarity conditions

$\alpha_{1} > 0$ && $\alpha_{2} > -6\ \alpha_{1}$

Validity assumptions

(Not yet implemented in PSALTer)