PSALTer results panel

$$\mathcal{S} == \iiiint \left(\frac{1}{6} \left(2\, t_{\dot{1}}\, \mathcal{A}^{\alpha i}{}_{\alpha}\, \mathcal{A}_{i}{}^{\theta}{}_{\theta} + 6\, \mathcal{A}^{\alpha\beta\chi}\, \sigma_{\alpha\beta\chi} + 6\, f^{\alpha\beta}\, \tau_{(\Delta+\mathcal{K})\alpha\beta} - 4\, t_{\dot{1}}\, \mathcal{A}_{\alpha}{}^{\theta}{}_{\theta}\, \partial_{i} f^{\alpha i} + 4\, t_{\dot{1}}\, \mathcal{A}_{i}{}^{\theta}{}_{\theta}\, \partial^{i} f^{\alpha}{}_{\alpha} - 2\, t_{\dot{1}}\, \partial_{i} f^{\theta}{}_{\theta}\, \partial^{i} f^{\alpha}{}_{\alpha} - 2\, t_{\dot{1}} \right. \right.$$
$$\partial_{i} f^{\alpha i}\, \partial_{\theta} f_{\alpha}{}^{\theta} + 4\, t_{\dot{1}}\, \partial^{i} f^{\alpha}{}_{\alpha}\, \partial_{\theta} f_{i}{}^{\theta} + 8\, r_{\dot{2}}\, \partial_{\beta} \mathcal{A}_{\alpha i}\, \partial^{\theta} \mathcal{A}^{\alpha\beta i} - 4\, r_{\dot{2}}\, \partial_{\beta} \mathcal{A}_{\alpha\theta i}\, \partial^{\theta} \mathcal{A}^{\alpha\beta i} + 4\, r_{\dot{2}}\, \partial_{\beta} \mathcal{A}_{i\theta\alpha}\, \partial^{\theta} \mathcal{A}^{\alpha\beta i} -$$
$$2\, r_{\dot{2}}\, \partial_{i} \mathcal{A}_{\alpha\beta\theta}\, \partial^{\theta} \mathcal{A}^{\alpha\beta i} + 2\, r_{\dot{2}}\, \partial_{\theta} \mathcal{A}_{\alpha\beta i}\, \partial^{\theta} \mathcal{A}^{\alpha\beta i} - 4\, r_{\dot{2}}\, \partial_{\theta} \mathcal{A}_{\alpha i\beta}\, \partial^{\theta} \mathcal{A}^{\alpha\beta i} - 6\, t_{\dot{1}}\, \partial_{\alpha} f_{i\theta}\, \partial^{\theta} f^{\alpha i} - 3\, t_{\dot{1}}\, \partial_{\alpha} f_{\theta i}\, \partial^{\theta} f^{\alpha i} + 3$$
$$\left. \left. t_{\dot{1}}\, \partial_{i} f_{\alpha\theta}\, \partial^{\theta} f^{\alpha i} + 3\, t_{\dot{1}}\, \partial_{\theta} f_{\alpha i}\, \partial^{\theta} f^{\alpha i} + 3\, t_{\dot{1}}\, \partial_{\theta} f_{i\alpha}\, \partial^{\theta} f^{\alpha i} + 6\, t_{\dot{1}}\, \mathcal{A}_{\alpha\theta i}\, \left(\mathcal{A}^{\alpha i \theta} + 2\, \partial^{\theta} f^{\alpha i} \right) \right) \right)[t,\, x,\, y,\, z]\, dz\, dy\, dx\, dt$$

Wave operator

Saturated propagator

Source constraints

Spin-parity form	Covariant form	Multiplicities
$\overset{0^+}{\cdot}\tau^\perp == 0$	$\partial_\beta \partial_\alpha \tau\,(\Delta+\mathcal{K})^{\alpha\beta} == 0$	1
$\overset{0^+}{\cdot}\tau^\parallel == 0$	$\partial_\beta \partial_\alpha \tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_\beta \partial^\beta \tau\,(\Delta+\mathcal{K})_\alpha{}^\alpha$	1
$\overset{0^+}{\cdot}\sigma^\parallel == 0$	$\partial_\beta \sigma^\alpha{}_\alpha{}^\beta == 0$	1
$2\,i\,k\,\overset{1^-}{\cdot}\sigma^\parallel{}^\alpha + \overset{1^-}{\cdot}\tau^\perp{}^\alpha == 0$	$\partial_\chi \partial_\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} + 2\left(\partial_\delta \partial^\delta \partial_\chi \partial^\alpha \sigma^\beta{}_\beta{}^\chi - \partial_\delta \partial^\delta \partial_\chi \partial_\beta \sigma^{\beta\chi\alpha} + \partial_\delta \partial^\delta \partial_\chi \partial^\chi \sigma^{\beta\alpha}{}_\beta\right) == \partial_\chi \partial^\chi \partial_\beta \tau\,(\Delta+\mathcal{K})^{\alpha\beta}$	3
$\overset{1^-}{\cdot}\tau^\parallel{}^\alpha == 0$	$\partial_\chi \partial_\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_\chi \partial^\chi \partial_\beta \tau\,(\Delta+\mathcal{K})^{\beta\alpha}$	3
$\overset{1^-}{\cdot}\sigma^\parallel{}^\alpha == \overset{1^-}{\cdot}\sigma^\perp{}^\alpha$	$\partial_\chi \partial^\alpha \sigma^\beta{}_\beta{}^\chi + \partial_\chi \partial^\chi \sigma^{\beta\alpha}{}_\beta == 0$	3
$i\,k\,\overset{1^-}{\cdot}\sigma^\parallel{}^{\alpha\beta} + \overset{1^-}{\cdot}\tau^\parallel{}^{\alpha\beta} == 0$	$\partial_\chi \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} + \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\chi\alpha} + \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 2\,\partial_\delta \partial_\chi \partial^\alpha \sigma^{\chi\beta\delta} + 2\,\partial_\delta \partial^\delta \partial_\chi \sigma^{\chi\alpha\beta} == \partial_\chi \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\chi\beta} + \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\alpha\chi} + \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 2\,\partial_\delta \partial_\chi \partial^\beta \sigma^{\chi\alpha\delta}$	3
$-2\,i\,k\,\overset{2^+}{\cdot}\sigma^\parallel{}^{\alpha\beta} + \overset{2^+}{\cdot}\tau^\parallel{}^{\alpha\beta} == 0$	$-i\left(4\,\partial_\delta \partial_\chi \partial^\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\chi\delta} + 2\,\partial_\delta \partial^\delta \partial^\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})_\chi{}^\chi - 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} - 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\chi\beta} - 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\alpha\chi} - 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\chi\alpha} + 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 4\,i\,k^\chi\,\partial_\epsilon \partial_\chi \partial^\beta \partial^\alpha \sigma^\delta{}_\delta{}^\epsilon - 6\,i\,k^\chi\,\partial_\epsilon \partial_\delta \partial_\chi \partial^\alpha \sigma^{\delta\beta\epsilon} - 6\,i\,k^\chi\,\partial_\epsilon \partial_\delta \partial_\chi \partial^\beta \sigma^{\delta\alpha\epsilon} + 6\,i\,k^\chi\,\partial_\epsilon \partial_\delta \partial_\chi \partial^\alpha \sigma^{\beta\delta\epsilon} + 6\,i\,k^\chi\,\partial_\epsilon \partial_\delta \partial_\chi \partial^\beta \sigma^{\alpha\delta\epsilon} + 2\,\eta^{\alpha\beta}\,\partial_\epsilon \partial_\delta \partial_\chi \tau\,(\Delta+\mathcal{K})^{\chi\delta} - 2\,\eta^{\alpha\beta}\,\partial_\epsilon \partial_\delta \partial_\delta \partial^\delta \tau\,(\Delta+\mathcal{K})^\chi{}_\chi - 4\,i\,\eta^{\alpha\beta}\,k^\chi\,\partial_\phi \partial^\phi \partial_\epsilon \partial_\chi \sigma^\delta{}_\delta{}^\epsilon\right) == 0$	5
Total expected gauge generators:		20

Massive spectrum

Massive particle

Pole residue:	$-\dfrac{1}{r_{\dot{2}}} > 0$
Square mass:	$\dfrac{t_{\dot{1}}}{r_{\dot{2}}} > 0$
Spin:	0
Parity:	Odd

Massless spectrum

(No particles)

Unitarity conditions

$r_{\dot{2}} < 0\ \&\&\ t_{\dot{1}} < 0$