PSALTer results panel

$$\mathcal{S} == \iiiint \left(\tfrac{1}{3}\left(3\,t_1\,\mathcal{A}^{\alpha\iota}\,\mathcal{A}_{i\ \theta}^{\ \theta} + 3\,\mathcal{A}^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi} + 3\,f^{\alpha\beta}\,\tau\,(\Delta+\mathcal{K})_{\alpha\beta} - 6\,t_1\,\mathcal{A}_{\alpha\ \theta}^{\ \theta}\,\partial_\iota f^{\alpha\iota} + 6\,t_1\,\mathcal{A}_{i\ \theta}^{\ \theta}\,\partial^\iota f^\alpha_{\ \alpha} - 3\,t_1\,\partial_\iota f^\theta_{\ \theta}\,\partial^\iota f^\alpha_{\ \alpha} - 3\,t_1\,\partial_\iota f^{\alpha\iota}\,\partial_\theta f_\alpha^{\ \theta} + 6\,t_1\,\partial^\iota f^\alpha_{\ \alpha}\,\partial_\theta f_\iota^{\ \theta} - 4\,r_1\,\partial_\beta \mathcal{A}_{\alpha\iota\theta}\,\partial^\theta \mathcal{A}^{\alpha\beta\iota} + \right.\right.$$
$$2\,r_1\,\partial_\beta\mathcal{A}_{\alpha\theta\iota}\,\partial^\theta\mathcal{A}^{\alpha\beta\iota} - 8\,r_1\,\partial_\beta\mathcal{A}_{\iota\theta\alpha}\,\partial^\theta\mathcal{A}^{\alpha\beta\iota} - 2\,r_1\,\partial_\iota\mathcal{A}_{\alpha\beta\theta}\,\partial^\theta\mathcal{A}^{\alpha\beta\iota} + 2\,r_1\,\partial_\theta\mathcal{A}_{\beta\iota}\,\partial^\theta\mathcal{A}^{\alpha\beta\iota} + 2\,r_1\,\partial_\theta\mathcal{A}_{\alpha\iota\beta}\,\partial^\theta\mathcal{A}^{\alpha\beta\iota} + 3\,r_5\,\partial_\iota\mathcal{A}_{\theta\ \kappa}^{\ \kappa}\,\partial^\theta\mathcal{A}^{\alpha\iota}_{\ \ \alpha} - 3\,r_5\,\partial_\kappa\mathcal{A}_{i\ \kappa}^{\ \kappa}\,\partial^\theta\mathcal{A}^{\alpha\iota}_{\ \ \alpha} + $$
$$2\,t_1\,\mathcal{A}_{\iota\theta\alpha}\,\partial^\theta f^{\alpha\iota} - 2\,t_1\,\partial_\alpha f_{\iota\theta}\,\partial^\theta f^{\alpha\iota} - 2\,t_1\,\partial_\alpha f_{\theta\iota}\,\partial^\theta f^{\alpha\iota} + t_1\,\partial_\iota f_{\alpha\theta}\,\partial^\theta f^{\alpha\iota} + 2\,t_1\,\partial_\theta f_{\alpha\iota}\,\partial^\theta f^{\alpha\iota} + t_1\,\partial_\theta f_{\iota\alpha}\,\partial^\theta f^{\alpha\iota} + t_1\,\mathcal{A}_{\alpha\iota\theta}\,\left(\mathcal{A}^{\alpha\iota\theta} + 2\,\partial^\theta f^{\alpha\iota}\right) + $$
$$\left.\left. t_1\,\mathcal{A}_{\alpha\theta\iota}\,\left(\mathcal{A}^{\alpha\iota\theta} + 4\,\partial^\theta f^{\alpha\iota}\right) - 3\,r_5\,\partial_\alpha\mathcal{A}^{\alpha\iota\theta}\,\partial_\kappa\mathcal{A}_{i\ \theta}^{\ \kappa} + 6\,r_5\,\partial^\theta\mathcal{A}^{\alpha\iota}_{\ \ \alpha}\,\partial_\kappa\mathcal{A}_{i\ \theta}^{\ \kappa} + 3\,r_5\,\partial_\alpha\mathcal{A}^{\alpha\iota\theta}\,\partial_\kappa\mathcal{A}_{\theta\ i}^{\ \kappa} - 6\,r_5\,\partial^\theta\mathcal{A}^{\alpha\iota}_{\ \ \alpha}\,\partial_\kappa\mathcal{A}_{\theta\ i}^{\ \kappa}\right)\right)[t,x,y,z]\,dz\,dy\,dx\,dt$$

Wave operator

Saturated propagator

Source constraints

Spin-parity form	Covariant form	Multiplicities
$0^-_.\sigma^\parallel == 0$	$\epsilon\,\eta_{\alpha\beta\chi\delta}\,\partial^\delta\sigma^{\alpha\beta\chi} == 0$	1
$0^+_.\tau^\parallel == 0$	$\partial_\beta\partial_\alpha\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == 0$	1
$-2\,i\,k\,0^+_.\sigma^\parallel + 0^+_.\tau^\parallel == 0$	$\partial_\beta\partial_\alpha\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_\beta\partial^\beta\tau\,(\Delta+\mathcal{K})^\alpha_{\ \alpha} + 2\,\partial_\alpha\partial^\chi\partial_\beta\sigma^\alpha_{\ \beta}$	1
$2\,i\,k\,1^-_.\sigma^{\perp\alpha} + 1^-_.\tau^{\parallel\alpha} == 0$	$\partial_\chi\partial_\beta\partial^\alpha\tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_\chi\partial^\chi\partial_\beta\tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 2\,\partial_\chi\partial^\delta\partial_\beta\sigma^{\beta\alpha\chi}$	3
$1^-_.\tau^{\parallel\alpha} == 0$	$\partial_\chi\partial_\beta\partial^\alpha\tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_\chi\partial^\chi\partial_\beta\tau\,(\Delta+\mathcal{K})^{\beta\alpha}$	3
$i\,k\,1^+_.\sigma^{\perp\alpha\beta} + 1^+_.\tau^{\parallel\alpha\beta} == 0$	$\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_\chi\partial_\delta\partial^\alpha\sigma^{\chi\beta\delta} + 2\,\partial_\chi\partial^\delta\partial_\delta\sigma^{\chi\alpha\beta} == $	3
	$\partial_\chi\partial^\alpha\tau\,(\Delta+\mathcal{K})^{\chi\beta} + \partial_\chi\partial^\beta\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + \partial_\chi\partial^\chi\tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 2\,\partial_\chi\partial_\delta\partial^\beta\sigma^{\chi\alpha\delta}$	
$-2\,i\,k\,2^+_.\sigma^{\parallel\alpha\beta} + 2^+_.\tau^{\parallel\alpha\beta} == 0$	$-i\,(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} - $	5
	$3\,\partial_\delta\partial^\delta\partial_\chi\partial^\alpha\tau\,(\Delta+\mathcal{K})^{\chi\beta} - 3\,\partial_\delta\partial^\delta\partial_\chi\partial^\beta\tau\,(\Delta+\mathcal{K})^{\chi\alpha} - 3\,\partial_\delta\partial^\delta\partial_\chi\partial^\beta\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + 3\,\partial_\delta\partial^\delta\partial_\chi\tau\,(\Delta+\mathcal{K})^{\alpha\beta} +$	
	$3\,\partial_\delta\partial^\delta\partial_\chi\partial^\chi\tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 4\,i\,k^\chi\,\partial_\delta\partial_\chi\partial^\beta\partial^\alpha\sigma^\delta_{\ \delta} - 6\,i\,k^\chi\,\partial_\delta\partial_\delta\partial_\chi\partial^\alpha\sigma^{\delta\beta}_{\ \ \delta} - 6\,i\,k^\chi\,\partial_\epsilon\partial_\delta\partial_\chi\partial^\beta\sigma^{\delta\alpha\epsilon} + 6\,i\,k^\chi\,\partial_\epsilon\partial^\epsilon\partial_\delta\partial_\chi\sigma^{\alpha\beta\delta} +$	
	$6\,i\,k^\chi\,\partial_\epsilon\partial^\epsilon\partial_\delta\partial_\chi\sigma^{\beta\alpha\delta} + 2\,\eta^{\alpha\beta}\,\partial_\epsilon\partial^\epsilon\partial_\delta\partial_\chi\tau\,(\Delta+\mathcal{K})^{\chi\delta} - 2\,\eta^{\alpha\beta}\,\partial_\epsilon\partial^\epsilon\partial_\delta\partial^\delta\tau\,(\Delta+\mathcal{K})^\chi_{\ \chi} - 4\,i\,\eta^{\alpha\beta}\,k^\chi\,\partial_\phi\partial^\phi\partial_\epsilon\partial_\chi\sigma^\delta_{\ \delta}{}^\epsilon) == 0$	
Total expected gauge generators:		17

Massive spectrum

Massive particle

Pole residue:	$-\dfrac{1}{r_1} > 0$
Square mass:	$-\dfrac{t_1}{2\,r_1} > 0$
Spin:	2
Parity:	Odd

Massless spectrum

Massless particle

Pole residue:	$\dfrac{9}{2\,r_1+r_5} + \dfrac{2\,p^2\,(t_1+(2\,r_1+r_5)\,p^2)}{t_1^2} > 0$
Polarisations:	2

Unitarity conditions

$r_1 < 0\ \&\&\ r_5 > -2\,r_1\ \&\&\ t_1 > 0$