PSALTer results panel

$$S == \int\int\int\int (\mathcal{A}^{\alpha\beta\chi}\ \sigma_{\alpha\beta\chi} + f^{\alpha\beta}\ \tau\,(\Delta+\mathcal{K})_{\alpha\beta} +$$
$$\frac{1}{3}\, r_{\cdot}{}_{2}\,(4\,\partial_{\beta}\mathcal{A}_{\alpha\iota\theta} - 2\,\partial_{\beta}\mathcal{A}_{\alpha\theta\iota} + 2\,\partial_{\beta}\mathcal{A}_{\iota\theta\alpha} - \partial_{\iota}\mathcal{A}_{\alpha\beta\theta} + \partial_{\theta}\mathcal{A}_{\alpha\beta\iota} - 2\,\partial_{\theta}\mathcal{A}_{\alpha\iota\beta})\,\partial^{\theta}\mathcal{A}^{\alpha\beta\iota} - \frac{1}{2}\, r_{\cdot}{}_{3}\,(\partial_{\beta}\mathcal{A}_{\iota}{}^{\theta}{}_{\theta}\,\partial^{\iota}\mathcal{A}^{\alpha\beta}{}_{\alpha} + \partial_{\iota}\mathcal{A}_{\beta}{}^{\theta}{}_{\theta}\,\partial^{\iota}\mathcal{A}^{\alpha\beta}{}_{\alpha} +$$
$$\partial_{\alpha}\mathcal{A}^{\alpha\beta\iota}\,\partial_{\theta}\mathcal{A}_{\beta}{}^{\theta}{}_{\iota} - 2\,\partial^{\iota}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\theta}\mathcal{A}_{\beta}{}^{\theta}{}_{\iota} + \partial_{\alpha}\mathcal{A}^{\alpha\beta\iota}\,\partial_{\theta}\mathcal{A}_{\iota}{}^{\theta}{}_{\beta} - 2\,\partial^{\iota}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\theta}\mathcal{A}_{\iota}{}^{\theta}{}_{\beta} + 8\,\partial_{\beta}\mathcal{A}_{\iota\theta\alpha}\,\partial^{\theta}\mathcal{A}^{\alpha\beta\iota}) +$$
$$r_{\cdot}{}_{5}\,(\partial_{\iota}\mathcal{A}_{\theta}{}^{\kappa}{}_{\kappa}\,\partial^{\theta}\mathcal{A}^{\alpha\iota}{}_{\alpha} - \partial_{\theta}\mathcal{A}_{\iota}{}^{\kappa}{}_{\kappa}\,\partial^{\theta}\mathcal{A}^{\alpha\iota}{}_{\alpha} - (\partial_{\alpha}\mathcal{A}^{\alpha\iota\theta} - 2\,\partial^{\theta}\mathcal{A}^{\alpha\iota}{}_{\alpha})\,(\partial_{\kappa}\mathcal{A}_{\iota}{}^{\kappa}{}_{\theta} - \partial_{\kappa}\mathcal{A}_{\theta}{}^{\kappa}{}_{\iota})))[t, x, y, z]\,dt\,dz\,dy\,dx\,dt$$

Wave operator

	$0^{+}_{\cdot}\mathcal{A}^{\parallel}$	$0^{+}_{\cdot}f^{\parallel}$	$0^{+}_{\cdot}f^{\perp}$	$0^{-}_{\cdot}\mathcal{A}^{\parallel}$
$0^{+}_{\cdot}\mathcal{A}^{\parallel\,\dagger}$	0	0	0	0
$0^{+}_{\cdot}f^{\parallel\,\dagger}$	0	0	0	0
$0^{+}_{\cdot}f^{\perp\,\dagger}$	0	0	0	0
$0^{-}_{\cdot}\mathcal{A}^{\parallel\,\dagger}$	0	0	0	$k^2\, r_{\cdot}{}_{2}$

	$1^{+}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$1^{+}_{\cdot}\mathcal{A}^{\perp}{}_{\alpha\beta}$	$1^{+}_{\cdot}f^{\parallel}{}_{\alpha\beta}$	$1^{-}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}\mathcal{A}^{\perp}{}_{\alpha}$	$1^{-}_{\cdot}f^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}f^{\perp}{}_{\alpha}$
$1^{+}_{\cdot}\mathcal{A}^{\parallel\,\dagger\,\alpha\beta}$	$k^2\,(2\,r_{\cdot}{}_{3} + r_{\cdot}{}_{5})$	0	0	0	0	0	0
$1^{+}_{\cdot}\mathcal{A}^{\perp\,\dagger\,\alpha\beta}$	0	0	0	0	0	0	0
$1^{+}_{\cdot}f^{\parallel\,\dagger\,\alpha\beta}$	0	0	0	0	0	0	0
$1^{-}_{\cdot}\mathcal{A}^{\parallel\,\dagger\,\alpha}$	0	0	0	$\frac{1}{2}\,k^2\,(r_{\cdot}{}_{3} + 2\,r_{\cdot}{}_{5})$	0	0	0
$1^{-}_{\cdot}\mathcal{A}^{\perp\,\dagger\,\alpha}$	0	0	0	0	0	0	0
$1^{-}_{\cdot}f^{\parallel\,\dagger\,\alpha}$	0	0	0	0	0	0	0
$1^{-}_{\cdot}f^{\perp\,\dagger\,\alpha}$	0	0	0	0	0	0	0

	$2^{+}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$2^{+}_{\cdot}f^{\parallel}{}_{\alpha\beta}$	$2^{-}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta\chi}$
$2^{+}_{\cdot}\mathcal{A}^{\parallel\,\dagger\,\alpha\beta}$	$-\frac{3\,k^2\,r_{\cdot}{}_{3}}{2}$	0	0
$2^{+}_{\cdot}f^{\parallel\,\dagger\,\alpha\beta}$	0	0	0
$2^{-}_{\cdot}\mathcal{A}^{\parallel\,\dagger\,\alpha\beta\chi}$	0	0	0

Saturated propagator

	$0^{+}_{\cdot}\sigma^{\parallel}$	$0^{+}_{\cdot}\tau^{\parallel}$	$0^{+}_{\cdot}\tau^{\perp}$	$0^{-}_{\cdot}\sigma^{\parallel}$
$0^{+}_{\cdot}\sigma^{\parallel\,\dagger}$	0	0	0	0
$0^{+}_{\cdot}\tau^{\parallel\,\dagger}$	0	0	0	0
$0^{+}_{\cdot}\tau^{\perp\,\dagger}$	0	0	0	0
$0^{-}_{\cdot}\sigma^{\parallel\,\dagger}$	0	0	0	$\frac{1}{k^2\, r_{\cdot}{}_{2}}$

	$1^{+}_{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$1^{+}_{\cdot}\sigma^{\perp}{}_{\alpha\beta}$	$1^{+}_{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$1^{-}_{\cdot}\sigma^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}\sigma^{\perp}{}_{\alpha}$	$1^{-}_{\cdot}\tau^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}\tau^{\perp}{}_{\alpha}$
$1^{+}_{\cdot}\sigma^{\parallel\,\dagger\,\alpha\beta}$	$\frac{1}{k^2\,(2\,r_{\cdot}{}_{3} + r_{\cdot}{}_{5})}$	0	0	0	0	0	0
$1^{+}_{\cdot}\sigma^{\perp\,\dagger\,\alpha\beta}$	0	0	0	0	0	0	0
$1^{+}_{\cdot}\tau^{\parallel\,\dagger\,\alpha\beta}$	0	0	0	0	0	0	0
$1^{-}_{\cdot}\sigma^{\parallel\,\dagger\,\alpha}$	0	0	0	$\frac{2}{k^2\,(r_{\cdot}{}_{3} + 2\,r_{\cdot}{}_{5})}$	0	0	0
$1^{-}_{\cdot}\sigma^{\perp\,\dagger\,\alpha}$	0	0	0	0	0	0	0
$1^{-}_{\cdot}\tau^{\parallel\,\dagger\,\alpha}$	0	0	0	0	0	0	0
$1^{-}_{\cdot}\tau^{\perp\,\dagger\,\alpha}$	0	0	0	0	0	0	0

	$2^{+}_{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$2^{+}_{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$2^{-}_{\cdot}\sigma^{\parallel}{}_{\alpha\beta\chi}$
$2^{+}_{\cdot}\sigma^{\parallel\,\dagger\,\alpha\beta}$	$-\frac{2}{3\,k^2\, r_{\cdot}{}_{3}}$	0	0
$2^{+}_{\cdot}\tau^{\parallel\,\dagger\,\alpha\beta}$	0	0	0
$2^{-}_{\cdot}\sigma^{\parallel\,\dagger\,\alpha\beta\chi}$	0	0	0

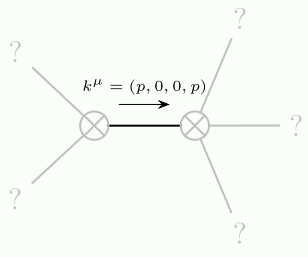
Source constraints

Spin-parity form	Covariant form	Multiplicities
$0^{+}_{\cdot}\tau^{\perp} == 0$	$\partial_{\beta}\partial_{\alpha}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == 0$	1
$0^{+}_{\cdot}\tau^{\parallel} == 0$	$\partial_{\beta}\partial_{\alpha}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_{\beta}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha}{}_{\alpha}$	1
$0^{+}_{\cdot}\sigma^{\parallel} == 0$	$\partial_{\beta}\sigma^{\alpha}{}_{\alpha}{}^{\beta} == 0$	1
$1^{-}_{\cdot}\tau^{\perp\,\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\beta}$	3
$1^{-}_{\cdot}\tau^{\parallel\,\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta}\tau\,(\Delta+\mathcal{K})^{\beta\alpha}$	3
$1^{-}_{\cdot}\sigma^{\perp\,\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\sigma^{\beta\alpha\chi} == 0$	3
$1^{+}_{\cdot}\tau^{\parallel\,\alpha\beta} == 0$	$\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} + \partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta} + \partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi} + \partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha}$	3
$1^{+}_{\cdot}\sigma^{\perp\,\alpha\beta} == 0$	$\partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\chi\beta\delta} + \partial_{\delta}\partial^{\delta}\partial_{\chi}\sigma^{\chi\alpha\beta} == \partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta}$	3
$2^{-}_{\cdot}\sigma^{\parallel\,\alpha\beta\chi} == 0$	$3\,\partial_{\epsilon}\partial_{\delta}\partial^{\chi}\partial^{\alpha}\sigma^{\delta\beta\epsilon} + 3\,\partial_{\epsilon}\partial^{\epsilon}\partial^{\chi}\partial^{\alpha}\sigma^{\delta\beta}{}_{\delta} + 2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\beta}\sigma^{\alpha\chi\delta} + 4\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\beta}\sigma^{\chi\alpha\delta} + 2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\beta}\sigma^{\delta\alpha\chi} + 2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\chi}\sigma^{\beta\alpha\delta} +$ $4\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\chi}\sigma^{\delta\alpha\beta} + 2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\sigma^{\alpha\beta\chi} + 3\ \eta^{\beta\chi}\ \partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial^{\alpha}\sigma^{\delta}{}_{\delta}{}^{\epsilon} + 3\ \eta^{\alpha\chi}\ \partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\delta}\sigma^{\delta\beta\epsilon} + 3\ \eta^{\beta\chi}\ \partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial^{\epsilon}\sigma^{\delta\alpha}{}_{\delta} == 3\,\partial_{\epsilon}\partial_{\delta}\partial^{\chi}\partial^{\beta}\sigma^{\delta\alpha\epsilon} + 3\,\partial_{\epsilon}\partial^{\epsilon}\partial^{\chi}\partial^{\beta}\sigma^{\delta\alpha}{}_{\delta} + 2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\alpha}\sigma^{\beta\chi\delta} + 4\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\alpha}\sigma^{\chi\beta\delta} +$ $2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\alpha}\sigma^{\delta\beta\chi} + 2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\chi}\sigma^{\alpha\beta\delta} + 2\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\sigma^{\beta\alpha\chi} + 4\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\sigma^{\chi\alpha\beta} +$ $3\ \eta^{\alpha\chi}\ \partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial^{\beta}\sigma^{\delta}{}_{\delta}{}^{\epsilon} + 3\ \eta^{\beta\chi}\ \partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\delta}\sigma^{\delta\alpha\epsilon} + 3\ \eta^{\alpha\chi}\ \partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial^{\epsilon}\sigma^{\delta\beta}{}_{\delta}$	5
$2^{+}_{\cdot}\tau^{\parallel\,\alpha\beta} == 0$	$4\,\partial_{\delta}\partial_{\chi}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\delta} + 2\,\partial_{\delta}\partial^{\delta}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha} +$ $2\ \eta^{\alpha\beta}\ \partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial_{\chi}\tau\,(\Delta+\mathcal{K})^{\chi\delta} == 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta} +$ $3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + 2\ \eta^{\alpha\beta}\ \partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi}$	5
Total expected gauge generators:			28

Massive spectrum

(No particles)

Massless spectrum



Massless particle

Pole residue:	$-\frac{2}{r_{\cdot}{}_{3}} + \frac{3}{2\,r_{\cdot}{}_{3} + r_{\cdot}{}_{5}} - \frac{16}{r_{\cdot}{}_{3} + 2\,r_{\cdot}{}_{5}} > 0$
Polarisations:	2

Unitarity conditions

$$(r_{\cdot}{}_{3} < 0\ \&\&\ (r_{\cdot}{}_{5} < -\frac{r_{\cdot}{}_{3}}{2}\ ||\ r_{\cdot}{}_{5} > -2\,r_{\cdot}{}_{3}))\ ||\ (r_{\cdot}{}_{3} > 0\ \&\&\ -2\,r_{\cdot}{}_{3} < r_{\cdot}{}_{5} < -\frac{r_{\cdot}{}_{3}}{2})$$