PSALTer results panel

$$S == \int\int\int\int\left(\frac{1}{6}\left(-4\,t_{.3}\,\mathcal{A}^{\alpha\,\prime}{}_{\alpha}\,\mathcal{A}_{\prime}{}^{\theta}{}_{\theta}+6\,\mathcal{A}^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi}+6\,f^{\alpha\beta}\,\tau\,(\Delta+\mathcal{K})_{\alpha\beta}+8\,t_{.3}\,\mathcal{A}_{\alpha}{}^{\theta}{}_{\theta}\,\partial_{\prime}f^{\alpha\,\prime}-3\,r_{.3}\,\partial_{\beta}\mathcal{A}_{\prime}{}^{\theta}{}_{\theta}\,\partial^{\prime}\mathcal{A}^{\alpha\beta}{}_{\alpha}-3\,r_{.3}\,\partial_{\prime}\mathcal{A}_{\beta}{}^{\theta}{}_{\theta}\,\partial^{\prime}\mathcal{A}^{\alpha\beta}{}_{\alpha}-8\,t_{.3}\,\mathcal{A}_{\prime}{}^{\theta}{}_{\theta}\,\partial^{\prime}f^{\alpha}{}_{\alpha}+4\,t_{.3}\,\partial_{\prime}f^{\theta}{}_{\theta}\,\partial^{\prime}f^{\alpha}{}_{\alpha}-3\,r_{.3}\,\partial_{\alpha}\mathcal{A}^{\alpha\beta\,\prime}\,\partial_{\theta}\mathcal{A}_{\beta}{}^{\theta}{}_{\prime}-3\,r_{.3}\,\partial_{\alpha}\mathcal{A}^{\alpha\beta\,\prime}\,\partial_{\theta}\mathcal{A}_{\prime}{}^{\theta}{}_{\beta}+6\,r_{.3}\,\partial^{\prime}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\theta}\mathcal{A}_{\beta}{}^{\theta}{}_{\prime}+6\,r_{.3}\,\partial^{\prime}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\theta}\mathcal{A}_{\prime}{}^{\theta}{}_{\beta}+4\,t_{.3}\,\partial_{\prime}f^{\alpha\,\prime}\,\partial_{\theta}f^{\theta}{}_{\alpha}-8\,t_{.3}\,\partial^{\prime}f^{\alpha}{}_{\alpha}\,\partial_{\theta}f_{\prime}{}^{\theta}-24\,r_{.3}\,\partial_{\beta}\mathcal{A}_{\prime\theta\alpha}\,\partial^{\theta}\mathcal{A}^{\alpha\beta\,\prime}+6\,r_{.5}\,\partial_{\prime}\mathcal{A}_{\theta}{}^{\kappa}{}_{\kappa}\,\partial^{\theta}\mathcal{A}^{\alpha\,\prime}{}_{\alpha}-6\,r_{.5}\,\partial_{\theta}\mathcal{A}_{\prime}{}^{\kappa}{}_{\kappa}\,\partial^{\theta}\mathcal{A}^{\alpha\,\prime}{}_{\alpha}+4\,t_{.2}\,\mathcal{A}_{\prime\theta\alpha}\,\partial^{\theta}f^{\alpha\,\prime}+2\,t_{.2}\,\partial_{\alpha}f_{\prime\,\theta}\,\partial^{\theta}f^{\alpha\,\prime}-t_{.2}\,\partial_{\alpha}f_{\theta\,\prime}\,\partial^{\theta}f^{\alpha\,\prime}-t_{.2}\,\partial_{\prime}f_{\alpha\theta}\,\partial^{\theta}f^{\alpha\,\prime}+t_{.2}\,\partial_{\theta}f_{\alpha\,\prime}\,\partial^{\theta}f^{\alpha\,\prime}-t_{.2}\,\partial_{\theta}f_{\prime\,\alpha}\,\partial^{\theta}f^{\alpha\,\prime}-4\,t_{.2}\,\mathcal{A}_{\alpha\theta\,\prime}\left(\mathcal{A}^{\alpha\,\prime\,\theta}+\partial^{\theta}f^{\alpha\,\prime}\right)+2\,t_{.2}\,\mathcal{A}_{\alpha\,\prime\,\theta}\left(\mathcal{A}^{\alpha\,\prime\,\theta}+2\,\partial^{\theta}f^{\alpha\,\prime}\right)-6\,r_{.5}\,\partial_{\alpha}\mathcal{A}^{\alpha\,\prime\,\theta}\,\partial_{\kappa}\mathcal{A}_{\prime}{}^{\kappa}{}_{\theta}+12\,r_{.5}\,\partial^{\theta}\mathcal{A}^{\alpha\,\prime}{}_{\alpha}\,\partial_{\kappa}\mathcal{A}_{\prime}{}^{\kappa}{}_{\theta}+6\,r_{.5}\,\partial_{\alpha}\mathcal{A}^{\alpha\,\prime\,\theta}\,\partial_{\kappa}\mathcal{A}_{\theta}{}^{\kappa}{}_{\prime}-12\,r_{.5}\,\partial^{\theta}\mathcal{A}^{\alpha\,\prime}{}_{\alpha}\,\partial_{\kappa}\mathcal{A}_{\theta}{}^{\kappa}{}_{\prime}\right)\right)[t,\,x,\,y,\,z]\,dz\,dy\,dx\,dt$$

Wave operator

	$0^+_.\mathcal{A}^{\parallel}$	$0^+_.f^{\parallel}$	$0^+_.f^{\perp}$	$0^-_.\mathcal{A}^{\parallel}$
$0^+_.\mathcal{A}^{\parallel}\,\dagger$	$t_{.3}$	$-i\sqrt{2}\,k\,t_{.3}$	0	0
$0^+_.f^{\parallel}\,\dagger$	$i\sqrt{2}\,k\,t_{.3}$	$2\,k^2\,t_{.3}$	0	0
$0^+_.f^{\perp}\,\dagger$	0	0	0	0
$0^-_.\mathcal{A}^{\parallel}\,\dagger$	0	0	0	$t_{.2}$

	$1^+_.\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$1^+_.\mathcal{A}^{\perp}{}_{\alpha\beta}$	$1^+_.f^{\parallel}{}_{\alpha\beta}$	$1^-_.\mathcal{A}^{\parallel}{}_{\alpha}$	$1^-_.\mathcal{A}^{\perp}{}_{\alpha}$	$1^-_.f^{\parallel}{}_{\alpha}$	$1^-_.f^{\perp}{}_{\alpha}$
$1^+_.\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$	$k^2\left(2\,r_{.3}+r_{.5}\right)+\frac{2\,t_{.2}}{3}$	$\frac{\sqrt{2}\,t_{.2}}{3}$	$\frac{1}{3}\,i\sqrt{2}\,k\,t_{.2}$	0	0	0	0
$1^+_.\mathcal{A}^{\perp}\,\dagger^{\alpha\beta}$	$\frac{\sqrt{2}\,t_{.2}}{3}$	$\frac{t_{.2}}{3}$	$\frac{i\,k\,t_{.2}}{3}$	0	0	0	0
$1^+_.f^{\parallel}\,\dagger^{\alpha\beta}$	$-\frac{1}{3}\,i\sqrt{2}\,k\,t_{.2}$	$-\frac{1}{3}\,i\,k\,t_{.2}$	$\frac{k^2\,t_{.2}}{3}$	0	0	0	0
$1^-_.\mathcal{A}^{\parallel}\,\dagger^{\alpha}$	0	0	0	$k^2\left(\frac{r_{.3}}{2}+r_{.5}\right)+\frac{2\,t_{.3}}{3}$	$-\frac{\sqrt{2}\,t_{.3}}{3}$	0	$-\frac{2}{3}\,i\,k\,t_{.3}$
$1^-_.\mathcal{A}^{\perp}\,\dagger^{\alpha}$	0	0	0	$-\frac{\sqrt{2}\,t_{.3}}{3}$	$\frac{t_{.3}}{3}$	0	$\frac{1}{3}\,i\sqrt{2}\,k\,t_{.3}$
$1^-_.f^{\parallel}\,\dagger^{\alpha}$	0	0	0	0	0	0	0
$1^-_.f^{\perp}\,\dagger^{\alpha}$	0	0	0	$\frac{2\,i\,k\,t_{.3}}{3}$	$-\frac{1}{3}\,i\sqrt{2}\,k\,t_{.3}$	0	$\frac{2\,k^2\,t_{.3}}{3}$

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

Saturated propagator

	$0^+_.\sigma^{\parallel}$	$0^+_.\tau^{\parallel}$	$0^+_.\tau^{\perp}$	$0^-_.\sigma^{\parallel}$
$0^+_.\sigma^{\parallel}\,\dagger$	$\frac{1}{\left(1+2\,k^2\right)^2\,t_{.3}}$	$-\frac{i\sqrt{2}\,k}{\left(1+2\,k^2\right)^2\,t_{.3}}$	0	0
$0^+_.\tau^{\parallel}\,\dagger$	$\frac{i\sqrt{2}\,k}{\left(1+2\,k^2\right)^2\,t_{.3}}$	$\frac{2\,k^2}{\left(1+2\,k^2\right)^2\,t_{.3}}$	0	0
$0^+_.\tau^{\perp}\,\dagger$	0	0	0	0
$0^-_.\sigma^{\parallel}\,\dagger$	0	0	0	$\frac{1}{t_{.2}}$

	$1^+_.\sigma^{\parallel}{}_{\alpha\beta}$	$1^+_.\sigma^{\perp}{}_{\alpha\beta}$	$1^+_.\tau^{\parallel}{}_{\alpha\beta}$	$1^-_.\sigma^{\parallel}{}_{\alpha}$	$1^-_.\sigma^{\perp}{}_{\alpha}$	$1^-_.\tau^{\parallel}{}_{\alpha}$	$1^-_.\tau^{\perp}{}_{\alpha}$
$1^+_.\sigma^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{1}{k^2\left(2\,r_{.3}+r_{.5}\right)}$	$-\frac{\sqrt{2}}{k^2\left(1+k^2\right)\left(2\,r_{.3}+r_{.5}\right)}$	$-\frac{i\sqrt{2}}{k\left(1+k^2\right)\left(2\,r_{.3}+r_{.5}\right)}$	0	0	0	0
$1^+_.\sigma^{\perp}\,\dagger^{\alpha\beta}$	$-\frac{\sqrt{2}}{k^2\left(1+k^2\right)\left(2\,r_{.3}+r_{.5}\right)}$	$\frac{3\,k^2\left(2\,r_{.3}+r_{.5}\right)+2\,t_{.2}}{\left(k+k^3\right)^2\left(2\,r_{.3}+r_{.5}\right)t_{.2}}$	$\frac{i\left(3\,k^2\left(2\,r_{.3}+r_{.5}\right)+2\,t_{.2}\right)}{k\left(1+k^2\right)^2\left(2\,r_{.3}+r_{.5}\right)t_{.2}}$	0	0	0	0
$1^+_.\tau^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{i\sqrt{2}}{k\left(1+k^2\right)\left(2\,r_{.3}+r_{.5}\right)}$	$-\frac{i\left(3\,k^2\left(2\,r_{.3}+r_{.5}\right)+2\,t_{.2}\right)}{k\left(1+k^2\right)^2\left(2\,r_{.3}+r_{.5}\right)t_{.2}}$	$\frac{3\,k^2\left(2\,r_{.3}+r_{.5}\right)+2\,t_{.2}}{\left(1+k^2\right)^2\left(2\,r_{.3}+r_{.5}\right)t_{.2}}$	0	0	0	0
$1^-_.\sigma^{\parallel}\,\dagger^{\alpha}$	0	0	0	$\frac{2}{k^2\left(r_{.3}+2\,r_{.5}\right)}$	$\frac{2\sqrt{2}}{k^2\left(1+2\,k^2\right)\left(r_{.3}+2\,r_{.5}\right)}$	0	$\frac{4i}{k\left(1+2\,k^2\right)\left(r_{.3}+2\,r_{.5}\right)}$
$1^-_.\sigma^{\perp}\,\dagger^{\alpha}$	0	0	0	$\frac{2\sqrt{2}}{k^2\left(1+2\,k^2\right)\left(r_{.3}+2\,r_{.5}\right)}$	$\frac{3\,k^2\left(r_{.3}+2\,r_{.5}\right)+4\,t_{.3}}{\left(k+2\,k^3\right)^2\left(r_{.3}+2\,r_{.5}\right)t_{.3}}$	0	$\frac{i\sqrt{2}\left(3\,k^2\left(r_{.3}+2\,r_{.5}\right)+4\,t_{.3}\right)}{k\left(1+2\,k^2\right)^2\left(r_{.3}+2\,r_{.5}\right)t_{.3}}$
$1^-_.\tau^{\parallel}\,\dagger^{\alpha}$	0	0	0	0	0	0	0
$1^-_.\tau^{\perp}\,\dagger^{\alpha}$	0	0	0	$-\frac{4i}{k\left(1+2\,k^2\right)\left(r_{.3}+2\,r_{.5}\right)}$	$-\frac{i\sqrt{2}\left(3\,k^2\left(r_{.3}+2\,r_{.5}\right)+4\,t_{.3}\right)}{k\left(1+2\,k^2\right)^2\left(r_{.3}+2\,r_{.5}\right)t_{.3}}$	0	$\frac{6\,k^2\left(r_{.3}+2\,r_{.5}\right)+8\,t_{.3}}{\left(1+2\,k^2\right)^2\left(r_{.3}+2\,r_{.5}\right)t_{.3}}$

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

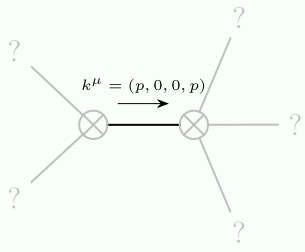
Source constraints

Spin-parity form	Covariant form	Multiplicities
$0^+_.\tau^{\perp} == 0$	$\partial_{\beta}\partial_{\alpha}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == 0$	1
$-2\,i\,k\,0^+_.\sigma^{\parallel}+0^+_.\tau^{\parallel} == 0$	$\partial_{\beta}\partial_{\alpha}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_{\beta}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha}{}_{\alpha}+2\,\partial_{\chi}\partial^{\chi}\partial_{\beta}\sigma^{\alpha\ \beta}_{\ \alpha}$	1
$2\,i\,k\,1^-_.\sigma^{\perp\,\alpha}+1^-_.\tau^{\perp\,\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta\tau}\,(\Delta+\mathcal{K})^{\alpha\beta}+2\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\sigma^{\beta\alpha\chi}$	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
$i\,k\,1^+_.\sigma^{\perp\,\alpha\beta}+1^+_.\tau^{\parallel\,\alpha\beta} == 0$	$\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi}+\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha}+\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta}+2\,\partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\chi\beta\delta}+2\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\sigma^{\chi\alpha\beta} == \partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta}+\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi}+\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha}+2\,\partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta}$	3
$2^-_.\sigma^{\parallel\,\alpha\beta\chi} == 0$	$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^{\delta}\sigma^{\beta\alpha\chi}+4\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\sigma^{\chi\alpha\beta}+3\,\eta^{\beta\chi}\,\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial^{\alpha}\sigma^{\delta\ \ \epsilon}_{\ \delta}+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_{\delta}\sigma^{\delta\alpha\epsilon}+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\ \ \epsilon}_{\ \delta}+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
$2^+_.\tau^{\parallel\,\alpha\beta} == 0$	$4\,\partial_{\delta}\partial_{\chi}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\delta}+2\,\partial_{\delta}\partial^{\delta}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi}+3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta}+3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha}+2\,\eta^{\alpha\beta}\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial_{\chi}\tau\,(\Delta+\mathcal{K})^{\chi\delta} == 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi}+3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta}+3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi}+3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha}+2\,\eta^{\alpha\beta}\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi}$	5
Total expected gauge generators:			21

Massive spectrum

(No particles)

Massless spectrum



Massless particle

Pole residue:	$-\frac{14}{r_{.3}}+\frac{57}{2\,r_{.3}+r_{.5}}-\frac{216}{r_{.3}+2\,r_{.5}} > 0$
Polarisations:	2

Unitarity conditions

$$\left(r_{.3} < 0\ \&\&\left(r_{.5} < -\frac{r_{.3}}{2}\ \|\|\ r_{.5} > -2\,r_{.3}\right)\right)\|\|\left(r_{.3} > 0\ \&\&\ -2\,r_{.3} < r_{.5} < -\frac{r_{.3}}{2}\right)$$