PSALTer results panel

$$\mathcal{S}==\iiiint\Big(\mathcal{A}^{\alpha\beta\chi}\ \sigma_{\alpha\beta\chi}+f^{\alpha\beta}\ \tau(\Delta+\mathcal{K})_{\alpha\beta}+\tfrac{1}{6}t_{1}\big(2\,\mathcal{A}^{\alpha\iota}{}_{\alpha}\,\mathcal{A}_{\iota}{}^{\theta}{}_{\theta}-4\,\mathcal{A}_{\alpha}{}^{\theta}{}_{\theta}\,\partial_{\iota}f^{\alpha\iota}+4\,\mathcal{A}_{\iota}{}^{\theta}{}_{\theta}\,\partial^{\iota}f^{\alpha}{}_{\alpha}-2\,\partial_{\iota}f^{\theta}{}_{\theta}\partial^{\iota}f^{\alpha}{}_{\alpha}-2\,\partial_{\iota}f^{\alpha\iota}\,\partial_{\theta}f_{\alpha}{}^{\theta}+4\,\partial^{\iota}f^{\alpha}{}_{\alpha}\partial_{\theta}f_{\iota}{}^{\theta}-6\,\partial_{\alpha}f_{\iota\theta}\partial^{\theta}f^{\alpha\iota}-3\,\partial_{\alpha}f_{\theta\iota}\partial^{\theta}f^{\alpha\iota}+3\,\partial_{\iota}f_{\alpha\theta}\partial^{\theta}f^{\alpha\iota}+3\,\partial_{\theta}f_{\alpha\iota}\partial^{\theta}f^{\alpha\iota}+3\,\partial_{\theta}f_{\iota\alpha}\partial^{\theta}f^{\alpha\iota}+6\,\mathcal{A}_{\alpha\theta\iota}\,(\mathcal{A}^{\alpha\iota\theta}+2\,\partial^{\theta}f^{\alpha\iota})\big)+ r_{5}\,(\partial_{\iota}\mathcal{A}_{\theta}{}^{\kappa}{}_{\kappa}\partial^{\theta}\mathcal{A}^{\alpha\iota}{}_{\alpha}-\partial_{\theta}\mathcal{A}_{\iota}{}^{\kappa}{}_{\kappa}\partial^{\theta}\mathcal{A}^{\alpha\iota}{}_{\alpha}-(\partial_{\alpha}\mathcal{A}^{\alpha\iota\theta}-2\,\partial^{\theta}\mathcal{A}^{\alpha\iota}{}_{\alpha})\,(\partial_{\kappa}\mathcal{A}_{\iota}{}^{\kappa}{}_{\theta}-\partial_{\kappa}\mathcal{A}_{\theta}{}^{\kappa}{}_{\iota}))\Big)[t,x,y,z]\,dz\,dy\,dx\,dt$$

Wave operator

	$0^{+}\mathcal{A}^{\parallel}$	$0^{+}f^{\parallel}$	$0^{+}f^{\perp}$	$0^{-}\mathcal{A}^{\parallel}$
$0^{+}\mathcal{A}^{\parallel}\,\dagger$	0	0	0	0
$0^{+}f^{\parallel}\,\dagger$	0	0	0	0
$0^{+}f^{\perp}\,\dagger$	0	0	0	0
$0^{-}\mathcal{A}^{\parallel}\,\dagger$	0	0	0	$-t_{1}$

	$1^{+}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$1^{+}\mathcal{A}^{\perp}{}_{\alpha\beta}$	$1^{+}f^{\parallel}{}_{\alpha\beta}$	$1^{-}\mathcal{A}^{\parallel}{}_{\alpha}$	$1^{-}\mathcal{A}^{\perp}{}_{\alpha}$	$1^{-}f^{\parallel}{}_{\alpha}$	$1^{-}f^{\perp}{}_{\alpha}$
$1^{+}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$	$k^{2}r_{5}-\frac{t_{1}}{2}$	$-\frac{t_{1}}{\sqrt{2}}$	$-\frac{i\,k\,t_{1}}{\sqrt{2}}$	0	0	0	0
$1^{+}\mathcal{A}^{\perp}\,\dagger^{\alpha\beta}$	$-\frac{t_{1}}{\sqrt{2}}$	0	0	0	0	0	0
$1^{+}f^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{i\,k\,t_{1}}{\sqrt{2}}$	0	0	0	0	0	0
$1^{-}\mathcal{A}^{\parallel}\,\dagger^{\alpha}$	0	0	0	$k^{2}r_{5}+\frac{t_{1}}{6}$	$\frac{t_{1}}{3\sqrt{2}}$	0	$\frac{i\,k\,t_{1}}{3}$
$1^{-}\mathcal{A}^{\perp}\,\dagger^{\alpha}$	0	0	0	$\frac{t_{1}}{3\sqrt{2}}$	$\frac{t_{1}}{3}$	0	$\frac{1}{3}i\sqrt{2}\,k\,t_{1}$
$1^{-}f^{\parallel}\,\dagger^{\alpha}$	0	0	0	0	0	0	0
$1^{-}f^{\perp}\,\dagger^{\alpha}$	0	0	0	$-\frac{1}{3}i\,k\,t_{1}$	$-\frac{1}{3}i\sqrt{2}\,k\,t_{1}$	0	$\frac{2k^{2}t_{1}}{3}$

	$2^{+}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$2^{+}f^{\parallel}{}_{\alpha\beta}$	$2^{-}\mathcal{A}^{\parallel}{}_{\alpha\beta\chi}$
$2^{+}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{t_{1}}{2}$	$-\frac{i\,k\,t_{1}}{\sqrt{2}}$	0
$2^{+}f^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{i\,k\,t_{1}}{\sqrt{2}}$	$k^{2}t_{1}$	0
$2^{-}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta\chi}$	0	0	$\frac{t_{1}}{2}$

Saturated propagator

	$0^{+}\sigma^{\parallel}$	$0^{+}\tau^{\parallel}$	$0^{+}\tau^{\perp}$	$0^{-}\sigma^{\parallel}$
$0^{+}\sigma^{\parallel}\,\dagger$	0	0	0	0
$0^{+}\tau^{\parallel}\,\dagger$	0	0	0	0
$0^{+}\tau^{\perp}\,\dagger$	0	0	0	0
$0^{-}\sigma^{\parallel}\,\dagger$	0	0	0	$-\frac{1}{t_{1}}$

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

	$2^{+}\sigma^{\parallel}{}_{\alpha\beta}$	$2^{+}\tau^{\parallel}{}_{\alpha\beta}$	$2^{-}\sigma^{\parallel}{}_{\alpha\beta\chi}$
$2^{+}\sigma^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{2}{(1+2k^{2})^{2}t_{1}}$	$-\frac{2i\sqrt{2}\,k}{(1+2k^{2})^{2}t_{1}}$	0
$2^{+}\tau^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{2i\sqrt{2}\,k}{(1+2k^{2})^{2}t_{1}}$	$\frac{4k^{2}}{(1+2k^{2})^{2}t_{1}}$	0
$2^{-}\sigma^{\parallel}\,\dagger^{\alpha\beta\chi}$	0	0	$\frac{2}{t_{1}}$

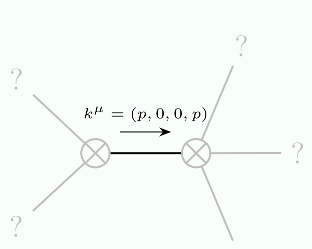
Source constraints

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

Massive spectrum

(No particles)

Massless spectrum



Massless particle

Pole residue:	$-\frac{7}{r_{5}}-\frac{2p^{2}}{t_{1}}-\frac{4r_{5}p^{4}}{t_{1}^{2}}>0$
Polarisations:	2

Unitarity conditions

$r_{5}<0\ \&\&\ (t_{1}<0\ \|\ t_{1}>0)$