PSALTer results panel

$$S == \int\int\int\int \left(\mathcal{A}^{\alpha\beta\chi}\ \sigma_{\alpha\beta\chi} + f^{\alpha\beta}\ \tau_{(\Delta+\mathcal{K})\alpha\beta} + t_1 \left(\mathcal{A}_{,\zeta\theta}\ \mathcal{A}'^{\theta\zeta} + \mathcal{A}'^{\theta}{}_{,}\ \mathcal{A}_{\theta}{}^{\zeta}{}_{\zeta} + 2\ f'^{\theta}\ \partial_\theta \mathcal{A}_{,}{}^{\zeta}{}_{\zeta} - 2\ \partial_\theta \mathcal{A}'^{\theta}{}_{,} - 2\ f'^{\theta}\ \partial_\zeta \mathcal{A}_{,}{}^{\zeta}{}_{\theta} + 2\ f'_{,} \right. \right. \\ \left. \left. \partial_\zeta \mathcal{A}^{\theta\zeta}{}_{\theta} \right) \right) [t,\ x,\ y,\ z]\, dz\, dy\, dx\, dt$$

Wave operator

	$0^+_\cdot \mathcal{A}^{\parallel}$	$0^+_\cdot f^{\parallel}$	$0^+_\cdot f^{\perp}$	$0^-_\cdot \mathcal{A}^{\parallel}$
$0^+_\cdot \mathcal{A}^{\parallel}\,\dagger$	$-t_{\cdot 1}$	$i\sqrt{2}\ k\, t_{\cdot 1}$	0	0
$0^+_\cdot f^{\parallel}\,\dagger$	$-i\sqrt{2}\ k\, t_{\cdot 1}$	0	0	0
$0^+_\cdot f^{\perp}\,\dagger$	0	0	0	0
$0^-_\cdot \mathcal{A}^{\parallel}\,\dagger$	0	0	0	$-t_{\cdot 1}$

	$1^+_\cdot \mathcal{A}^{\parallel}{}_{\alpha\beta}$	$1^+_\cdot \mathcal{A}^{\perp}{}_{\alpha\beta}$	$1^+_\cdot f^{\parallel}{}_{\alpha\beta}$	$1^-_\cdot \mathcal{A}^{\parallel}{}_{\alpha}$	$1^-_\cdot \mathcal{A}^{\perp}{}_{\alpha}$	$1^-_\cdot f^{\parallel}{}_{\alpha}$	$1^-_\cdot f^{\perp}{}_{\alpha}$
$1^+_\cdot \mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$	$-\frac{t_{\cdot 1}}{2}$	$-\frac{t_{\cdot 1}}{\sqrt{2}}$	$-\frac{ikt_{\cdot 1}}{\sqrt{2}}$	0	0	0	0
$1^+_\cdot \mathcal{A}^{\perp}\,\dagger^{\alpha\beta}$	$-\frac{t_{\cdot 1}}{\sqrt{2}}$	0	0	0	0	0	0
$1^+_\cdot f^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{ikt_{\cdot 1}}{\sqrt{2}}$	0	0	0	0	0	0
$1^-_\cdot \mathcal{A}^{\parallel}\,\dagger^{\alpha}$	0	0	0	$-\frac{t_{\cdot 1}}{2}$	$\frac{t_{\cdot 1}}{\sqrt{2}}$	0	$ikt_{\cdot 1}$
$1^-_\cdot \mathcal{A}^{\perp}\,\dagger^{\alpha}$	0	0	0	$\frac{t_{\cdot 1}}{\sqrt{2}}$	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	$-ikt_{\cdot 1}$	0	0	0

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

Saturated propagator

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

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

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

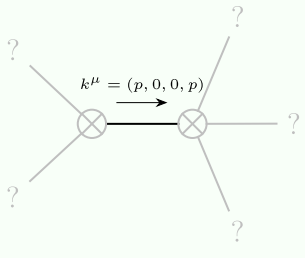
Source constraints

Spin-parity form	Covariant form	Multiplicities
$0^+_\cdot \tau^{\perp} == 0$	$\partial_\beta \partial_\alpha \tau_{(\Delta+\mathcal{K})}{}^{\alpha\beta} == 0$	1
$2\,i\,k\ 1^-_\cdot \sigma^{\perp}{}^{\alpha} + 1^-_\cdot \tau^{\perp}{}^{\alpha} == 0$	$\partial_\chi \partial_\beta \partial^\alpha \tau_{(\Delta+\mathcal{K})}{}^{\beta\chi} == \partial_\chi \partial^\chi \partial_\beta \tau_{(\Delta+\mathcal{K})}{}^{\alpha\beta} + 2\ \partial_\delta \partial^\delta \partial_\chi \partial_\beta \sigma^{\beta\alpha\chi}$	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
$i\,k\ 1^+_\cdot \sigma^{\perp}{}^{\alpha\beta} + 1^+_\cdot \tau^{\parallel}{}^{\alpha\beta} == 0$	$\partial_\chi \partial^\alpha \tau_{(\Delta+\mathcal{K})}{}^{\beta\chi} + \partial_\chi \partial^\beta \tau_{(\Delta+\mathcal{K})}{}^{\chi\alpha} + \partial_\chi \partial^\chi \tau_{(\Delta+\mathcal{K})}{}^{\alpha\beta} + 2\ \partial_\delta \partial_\chi \partial^\alpha \sigma^{\chi\beta\delta} + 2\ \partial_\delta \partial^\delta \partial_\chi \sigma^{\chi\alpha\beta} ==$ $\partial_\chi \partial^\alpha \tau_{(\Delta+\mathcal{K})}{}^{\chi\beta} + \partial_\chi \partial^\beta \tau_{(\Delta+\mathcal{K})}{}^{\alpha\chi} + \partial_\chi \partial^\chi \tau_{(\Delta+\mathcal{K})}{}^{\beta\alpha} + 2\ \partial_\delta \partial_\chi \partial^\beta \sigma^{\chi\alpha\delta}$	3
Total expected gauge generators:		10

Massive spectrum

(No particles)

Massless spectrum



Massless particle

Pole residue:	$-\frac{p^2}{t_{\cdot 1}} > 0$
Polarisations:	2

Unitarity conditions

$t_{\cdot 1} < 0$