PSALTer results panel

$$S == \int\int\int\int \left(\mathcal{A}^{\alpha\beta\chi}\ \sigma_{\alpha\beta\chi} + f^{\alpha\beta}\ \tau\,(\Delta+\mathcal{K})_{\alpha\beta} + \frac{1}{3}\, r_{\cdot 2}\, \left(4\,\partial_\beta \mathcal{A}_{\alpha\,\prime\,\theta} - 2\,\partial_\beta \mathcal{A}_{\alpha\theta\,\prime} + 2\,\partial_\beta \mathcal{A}_{\prime\,\theta\alpha} - \partial_\prime \mathcal{A}_{\alpha\beta\theta} + \partial_\theta \mathcal{A}_{\alpha\,\prime\,\beta} - 2\,\partial_\theta \mathcal{A}_{\alpha\,\prime\,\beta} \right) \partial^\theta \mathcal{A}^{\alpha\beta\,\prime} + \frac{1}{2}\, t_{\cdot 1}\, \left(2\ \mathcal{A}^{\alpha\,\prime}{}_{\alpha}\ \mathcal{A}_{\prime}{}^{\theta}{}_{\theta} - 4\ \mathcal{A}_{\alpha}{}^{\theta}{}_{\theta}\ \partial_\prime f^{\alpha\,\prime} + 4\ \mathcal{A}_{\prime}{}^{\theta}{}_{\theta}\ \partial^\prime f^{\alpha}{}_{\alpha} - 2\,\partial_\prime f^{\theta}{}_{\theta}\,\partial^\prime f^{\alpha}{}_{\alpha} - 2\,\partial_\prime f^{\alpha\,\prime}\,\partial_\theta f_{\alpha}{}^{\theta} + 4\,\partial^\prime f^{\alpha}{}_{\alpha}\,\partial_\theta f_{\prime}{}^{\theta} - 2\,\partial_\alpha f_{\prime\,\theta}\,\partial^\theta f^{\alpha\,\prime} - \partial_\alpha f_{\theta\,\prime}\,\partial^\theta f^{\alpha\,\prime} + \partial_\prime f_{\alpha\theta}\,\partial^\theta f^{\alpha\,\prime} + \partial_\theta f_{\alpha\,\prime}\,\partial^\theta f^{\alpha\,\prime} + \partial_\theta f_{\prime\,\alpha}\,\partial^\theta f^{\alpha\,\prime} + 2\ \mathcal{A}_{\alpha\theta\,\prime}\ \left(\mathcal{A}^{\alpha\,\prime\,\theta} + 2\,\partial^\theta f^{\alpha\,\prime} \right) \right) \Big] dt\, dx\, dy\, dz \Big)$$

Wave operator

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

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

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

Saturated propagator

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

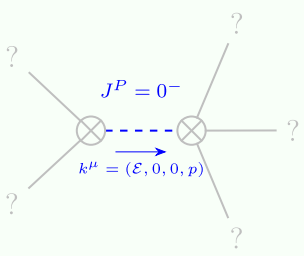
	$\overset{1^+}{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$\overset{1^+}{\cdot}\sigma^{\perp}{}_{\alpha\beta}$	$\overset{1^+}{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$\overset{1^-}{\cdot}\sigma^{\parallel}{}_{\alpha}$	$\overset{1^-}{\cdot}\sigma^{\perp}{}_{\alpha}$	$\overset{1^-}{\cdot}\tau^{\parallel}{}_{\alpha}$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

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

Source constraints

Spin-parity form	Covariant form	Multiplicities
$\overset{0^+}{\cdot}\tau^{\perp} == 0$	$\partial_\beta \partial_\alpha \tau\,(\Delta+\mathcal{K})^{\alpha\beta} == 0$	1
$-2\,i\,k\ \overset{0^+}{\cdot}\sigma^{\parallel} + \overset{0^+}{\cdot}\tau^{\parallel} == 0$	$\partial_\beta \partial_\alpha \tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_\beta \partial^\beta \tau\,(\Delta+\mathcal{K})^{\alpha}{}_{\alpha} + 2\,\partial_\chi \partial^\chi \partial_\beta \sigma^{\alpha}{}_{\alpha}{}^{\beta}$	1
$2\,i\,k\ \overset{1^-}{\cdot}\sigma^{\perp}{}^{\alpha} + \overset{1^-}{\cdot}\tau^{\perp}{}^{\alpha} == 0$	$\partial_\chi \partial_\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_\chi \partial^\chi \partial_\beta \tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 2\,\partial_\delta \partial^\delta \partial_\chi \partial_\beta \sigma^{\beta\alpha\chi}$	3
$\overset{1^-}{\cdot}\tau^{\parallel}{}^{\alpha} == 0$	$\partial_\chi \partial_\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_\chi \partial^\chi \partial_\beta \tau\,(\Delta+\mathcal{K})^{\beta\alpha}$	3
$i\,k\ \overset{1^+}{\cdot}\sigma^{\perp}{}^{\alpha\beta} + \overset{1^+}{\cdot}\tau^{\parallel}{}^{\alpha\beta} == 0$	$\partial_\chi \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} + \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\chi\alpha} + \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 2\,\partial_\delta \partial_\chi \partial^\alpha \sigma^{\chi\beta\delta} + 2\,\partial_\delta \partial^\delta \partial_\chi \sigma^{\chi\alpha\beta} == \partial_\chi \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\chi\beta} + \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\alpha\chi} + \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 2\,\partial_\delta \partial_\chi \partial^\beta \sigma^{\chi\alpha\delta}$	3
$-2\,i\,k\ \overset{2^+}{\cdot}\sigma^{\parallel}{}^{\alpha\beta} + \overset{2^+}{\cdot}\tau^{\parallel}{}^{\alpha\beta} == 0$	$-i \Big(4\,\partial_\delta \partial_\chi \partial^\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\chi\delta} + 2\,\partial_\delta \partial^\delta \partial^\beta \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi} - 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\alpha \tau\,(\Delta+\mathcal{K})^{\beta\chi} - 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\chi\alpha} - 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\beta \tau\,(\Delta+\mathcal{K})^{\alpha\chi} + 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 3\,\partial_\delta \partial^\delta \partial_\chi \partial^\chi \tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 4\,i\ k^\chi\ \partial_\epsilon \partial_\chi \partial^\beta \partial^\alpha \sigma^{\delta}{}_{\delta}{}^{\epsilon} - 6\,i\ k^\chi\ \partial_\epsilon \partial_\delta \partial_\chi \partial^\beta \sigma^{\delta\beta\epsilon} - 6\,i\ k^\chi\ \partial_\epsilon \partial_\delta \partial_\chi \partial^\beta \sigma^{\delta\alpha\epsilon} + 6\,i\ k^\chi\ \partial_\epsilon \partial^\epsilon \partial_\delta \partial_\chi \sigma^{\alpha\beta\delta} + 6\,i\ k^\chi\ \partial_\epsilon \partial^\epsilon \partial_\delta \partial_\chi \sigma^{\beta\alpha\delta} + 2\ \eta^{\alpha\beta}\ \partial_\epsilon \partial^\epsilon \partial_\delta \partial_\chi \tau\,(\Delta+\mathcal{K})^{\chi\delta} - 2\ \eta^{\alpha\beta}\ \partial_\epsilon \partial^\epsilon \partial_\delta \partial^\delta \tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi} - 4\,i\ \eta^{\alpha\beta}\ k^\chi\ \partial_\phi \partial^\phi \partial_\epsilon \partial_\chi \sigma^{\delta}{}_{\delta}{}^{\epsilon} \Big) == 0$	5
Total expected gauge generators:		16

Massive spectrum



Massive particle

Pole residue:	$-\frac{1}{r_{\cdot 2}} > 0$
Square mass:	$\frac{t_{\cdot 1}}{r_{\cdot 2}} > 0$
Spin:	0
Parity:	Odd

Massless spectrum

(No particles)

Unitarity conditions

$r_{\cdot 2} < 0\ \&\&\ t_{\cdot 1} < 0$