PSALTer results panel

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

Wave operator

	$0^+_{\cdot}\mathcal{A}^{\parallel}$	$0^+_{\cdot}f^{\parallel}$	$0^+_{\cdot}f^{\perp}$	$0^-_{\cdot}\mathcal{A}^{\parallel}$	$1^+_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$1^+_{\cdot}\mathcal{A}^{\perp}{}_{\alpha\beta}$	$1^+_{\cdot}f^{\parallel}{}_{\alpha\beta}$	$1^-_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha}$	$1^-_{\cdot}\mathcal{A}^{\perp}{}_{\alpha}$	$1^-_{\cdot}f^{\parallel}{}_{\alpha}$	$1^-_{\cdot}f^{\perp}{}_{\alpha}$	$2^+_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$2^+_{\cdot}f^{\parallel}{}_{\alpha\beta}$	$2^-_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta\chi}$
$0^+_{\cdot}\mathcal{A}^{\parallel}\,\dagger$	$-t_{1\cdot}$	$i\sqrt{2}\,k\,t_{1\cdot}$	0	0										
$0^+_{\cdot}f^{\parallel}\,\dagger$	$-i\sqrt{2}\,k\,t_{1\cdot}$	$-2\,k^2\,t_{1\cdot}$	0	0										
$0^+_{\cdot}f^{\perp}\,\dagger$	0	0	0	0										
$0^-_{\cdot}\mathcal{A}^{\parallel}\,\dagger$	0	0	0	$k^2\, r_{2\cdot} + t_{2\cdot}$										
$1^+_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$					$\frac{1}{6}\left(t_{1\cdot} + 4\, t_{2\cdot}\right)$	$-\frac{t_{1\cdot} - 2\, t_{2\cdot}}{3\sqrt{2}}$	$-\frac{i\,k\left(t_{1\cdot} - 2\, t_{2\cdot}\right)}{3\sqrt{2}}$	0	0	0	0			
$1^+_{\cdot}\mathcal{A}^{\perp}\,\dagger^{\alpha\beta}$					$-\frac{t_{1\cdot} - 2\, t_{2\cdot}}{3\sqrt{2}}$	$\frac{t_{1\cdot} + t_{2\cdot}}{3}$	$\frac{1}{3}\, i\, k\left(t_{1\cdot} + t_{2\cdot}\right)$	0	0	0	0			
$1^+_{\cdot}f^{\parallel}\,\dagger^{\alpha\beta}$					$\frac{i\,k\left(t_{1\cdot} - 2\, t_{2\cdot}\right)}{3\sqrt{2}}$	$-\frac{1}{3}\, i\, k\left(t_{1\cdot} + t_{2\cdot}\right)$	$\frac{1}{3}\, k^2\left(t_{1\cdot} + t_{2\cdot}\right)$	0	0	0	0			
$1^-_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha}$					0	0	0	$-\frac{t_{1\cdot}}{2}$	$\frac{t_{1\cdot}}{\sqrt{2}}$	0	$i\,k\,t_{1\cdot}$			
$1^-_{\cdot}\mathcal{A}^{\perp}\,\dagger^{\alpha}$					0	0	0	$\frac{t_{1\cdot}}{\sqrt{2}}$	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	$-i\,k\,t_{1\cdot}$	0	0	0			
$2^+_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$												$\frac{t_{1\cdot}}{2}$	$-\frac{i\,k\,t_{1\cdot}}{\sqrt{2}}$	0
$2^+_{\cdot}f^{\parallel}\,\dagger^{\alpha\beta}$												$\frac{i\,k\,t_{1\cdot}}{\sqrt{2}}$	$k^2\, t_{1\cdot}$	0
$2^-_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta\chi}$												0	0	$\frac{t_{1\cdot}}{2}$

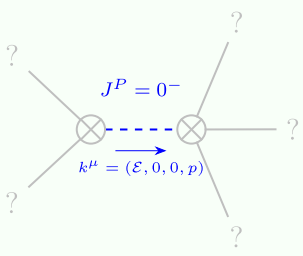
Saturated propagator

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

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

Massive spectrum



Massive particle

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

Massless spectrum

(No particles)

Unitarity conditions

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