PSALTer results panel

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

Wave operator

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

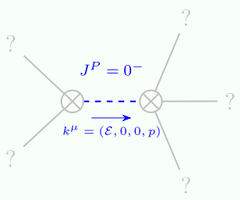
Saturated propagator

	$0^+_{\cdot}\sigma^{\parallel}$	$0^+_{\cdot}\tau^{\parallel}$	$0^+_{\cdot}\tau^{\perp}$	$0^-_{\cdot}\sigma^{\parallel}$	$1^+_{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$1^+_{\cdot}\sigma^{\perp}{}_{\alpha\beta}$	$1^+_{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$1^-_{\cdot}\sigma^{\parallel}{}_{\alpha}$	$1^-_{\cdot}\sigma^{\perp}{}_{\alpha}$	$1^-_{\cdot}\tau^{\parallel}{}_{\alpha}$	$1^-_{\cdot}\tau^{\perp}{}_{\alpha}$	$2^+_{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$2^+_{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$2^-_{\cdot}\sigma^{\parallel}{}_{\alpha\beta\chi}$
$0^+_{\cdot}\sigma^{\parallel}\,\dagger$	$-\frac{1}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	$\frac{i\sqrt{2}\,k}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	0	0										
$0^+_{\cdot}\tau^{\parallel}\,\dagger$	$-\frac{i\sqrt{2}\,k}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	$-\frac{2k^2}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	0	0										
$0^+_{\cdot}\tau^{\perp}\,\dagger$	0	0	0	0										
$0^-_{\cdot}\sigma^{\parallel}\,\dagger$	0	0	0	$\frac{1}{k^2 r_{\cdot}{}_{2} - t_{\cdot}{}_{1}}$										
$1^+_{\cdot}\sigma^{\parallel}\,\dagger^{\alpha\beta}$					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	$\frac{2k^2}{(1+2k^2)^2 t_{\cdot}{}_{1}}$			
$2^+_{\cdot}\sigma^{\parallel}\,\dagger^{\alpha\beta}$												$\frac{2}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	$-\frac{2i\sqrt{2}\,k}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	0
$2^+_{\cdot}\tau^{\parallel}\,\dagger^{\alpha\beta}$												$\frac{2i\sqrt{2}\,k}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	$\frac{4k^2}{(1+2k^2)^2 t_{\cdot}{}_{1}}$	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
$-2ik\,0^+_{\cdot}\sigma^{\parallel} + 0^+_{\cdot}\tau^{\parallel} == 0$	$\partial_{\beta}\partial_{\alpha}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_{\beta}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha}{}_{\alpha} + 2\,\partial_{\chi}\partial^{\chi}\partial_{\beta}\sigma^{\alpha}{}_{\alpha}{}^{\beta}$	1
$2ik\,1^-_{\cdot}\sigma^{\perp\,\alpha} + 1^-_{\cdot}\tau^{\perp\,\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 2\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\sigma^{\beta\alpha\chi}$	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
$ik\,1^+_{\cdot}\sigma^{\perp\,\alpha\beta} + 1^+_{\cdot}\tau^{\parallel\,\alpha\beta} == 0$	$\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} + \partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 2\,\partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\chi\beta\delta} + 2\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\sigma^{\chi\alpha\beta} == \partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta} + \partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi} + \partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 2\,\partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta}$	3
$-2ik\,2^+_{\cdot}\sigma^{\parallel\,\alpha\beta} + 2^+_{\cdot}\tau^{\parallel\,\alpha\beta} == 0$	$-i\,(4\,\partial_{\delta}\partial_{\chi}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\delta} + 2\,\partial_{\delta}\partial^{\delta}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi} - 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} - 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta} - 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi} - 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha} +$ $4i\,k^{\chi}\,\partial_{\epsilon}\partial_{\chi}\partial^{\beta}\partial^{\alpha}\sigma^{\delta}{}_{\delta}{}^{\epsilon} - 6i\,k^{\chi}\,\partial_{\epsilon}\partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\delta\beta\epsilon} - 6i\,k^{\chi}\,\partial_{\epsilon}\partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\delta\alpha\epsilon} + 6i\,k^{\chi}\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial_{\chi}\sigma^{\alpha\beta\delta} + 6i\,k^{\chi}\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial_{\chi}\sigma^{\beta\alpha\delta} + 2\,\eta^{\alpha\beta}\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial_{\chi}\tau\,(\Delta+\mathcal{K})^{\chi\delta} - 2\,\eta^{\alpha\beta}\,\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi} - 4i\,\eta^{\alpha\beta}\,k^{\chi}\,\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\chi}\sigma^{\delta}{}_{\delta}{}^{\epsilon}) == 0$	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

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