PSALTer results panel

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

Wave operator

	$0^{+}_{\cdot}\mathcal{A}^{\parallel}$	$0^{+}_{\cdot}f^{\parallel}$	$0^{+}_{\cdot}f^{\perp}$	$0^{-}_{\cdot}\mathcal{A}^{\parallel}$	$1^{+}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$1^{+}_{\cdot}\mathcal{A}^{\perp}{}_{\alpha\beta}$	$1^{+}_{\cdot}f^{\parallel}{}_{\alpha\beta}$	$1^{-}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}\mathcal{A}^{\perp}{}_{\alpha}$	$1^{-}_{\cdot}f^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}f^{\perp}{}_{\alpha}$	$2^{+}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$2^{+}_{\cdot}f^{\parallel}{}_{\alpha\beta}$	$2^{-}_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta\chi}$
$0^{+}_{\cdot}\mathcal{A}^{\parallel}\,\dagger$	0	0	0	0										
$0^{+}_{\cdot}f^{\parallel}\,\dagger$	0	0	0	0										
$0^{+}_{\cdot}f^{\perp}\,\dagger$	0	0	0	0										
$0^{-}_{\cdot}\mathcal{A}^{\parallel}\,\dagger$	0	0	0	0										
$1^{+}_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$					$k^2\,(2\,r_{\cdot}{}_{1} + r_{\cdot}{}_{5})$	0	0	0	0	0	0			
$1^{+}_{\cdot}\mathcal{A}^{\perp}\,\dagger^{\alpha\beta}$					0	0	0	0	0	0	0			
$1^{+}_{\cdot}f^{\parallel}\,\dagger^{\alpha\beta}$					0	0	0	0	0	0	0			
$1^{-}_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha}$					0	0	0	$k^2\,(r_{\cdot}{}_{1} + r_{\cdot}{}_{5})$	0	0	0			
$1^{-}_{\cdot}\mathcal{A}^{\perp}\,\dagger^{\alpha}$					0	0	0	0	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	0	0	0	0			
$2^{+}_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta}$												0	0	0
$2^{+}_{\cdot}f^{\parallel}\,\dagger^{\alpha\beta}$												0	0	0
$2^{-}_{\cdot}\mathcal{A}^{\parallel}\,\dagger^{\alpha\beta\chi}$												0	0	$k^2\,r_{\cdot}{}_{1}$

Saturated propagator

	$0^{+}_{\cdot}\sigma^{\parallel}$	$0^{+}_{\cdot}\tau^{\parallel}$	$0^{+}_{\cdot}\tau^{\perp}$	$0^{-}_{\cdot}\sigma^{\parallel}$	$1^{+}_{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$1^{+}_{\cdot}\sigma^{\perp}{}_{\alpha\beta}$	$1^{+}_{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$1^{-}_{\cdot}\sigma^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}\sigma^{\perp}{}_{\alpha}$	$1^{-}_{\cdot}\tau^{\parallel}{}_{\alpha}$	$1^{-}_{\cdot}\tau^{\perp}{}_{\alpha}$	$2^{+}_{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$2^{+}_{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$2^{-}_{\cdot}\sigma^{\parallel}{}_{\alpha\beta\chi}$
$0^{+}_{\cdot}\sigma^{\parallel}\,\dagger$	0	0	0	0										
$0^{+}_{\cdot}\tau^{\parallel}\,\dagger$	0	0	0	0										
$0^{+}_{\cdot}\tau^{\perp}\,\dagger$	0	0	0	0										
$0^{-}_{\cdot}\sigma^{\parallel}\,\dagger$	0	0	0	0										
$1^{+}_{\cdot}\sigma^{\parallel}\,\dagger^{\alpha\beta}$					$\frac{1}{k^2\,(2\,r_{\cdot}{}_{1}+r_{\cdot}{}_{5})}$	0	0	0	0	0	0			
$1^{+}_{\cdot}\sigma^{\perp}\,\dagger^{\alpha\beta}$					0	0	0	0	0	0	0			
$1^{+}_{\cdot}\tau^{\parallel}\,\dagger^{\alpha\beta}$					0	0	0	0	0	0	0			
$1^{-}_{\cdot}\sigma^{\parallel}\,\dagger^{\alpha}$					0	0	0	$\frac{1}{k^2\,(r_{\cdot}{}_{1}+r_{\cdot}{}_{5})}$	0	0	0			
$1^{-}_{\cdot}\sigma^{\perp}\,\dagger^{\alpha}$					0	0	0	0	0	0	0			
$1^{-}_{\cdot}\tau^{\parallel}\,\dagger^{\alpha}$					0	0	0	0	0	0	0			
$1^{-}_{\cdot}\tau^{\perp}\,\dagger^{\alpha}$					0	0	0	0	0	0	0			
$2^{+}_{\cdot}\sigma^{\parallel}\,\dagger^{\alpha\beta}$												0	0	0
$2^{+}_{\cdot}\tau^{\parallel}\,\dagger^{\alpha\beta}$												0	0	0
$2^{-}_{\cdot}\sigma^{\parallel}\,\dagger^{\alpha\beta\chi}$												0	0	$\frac{1}{k^2\,r_{\cdot}{}_{1}}$

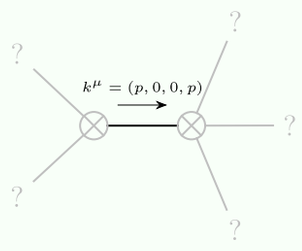
Source constraints

Spin-parity form	Covariant form	Multiplicities
$0^{-}_{\cdot}\sigma^{\parallel} == 0$	$\epsilon\eta_{\alpha\beta\chi\delta}\,\partial^{\delta}\sigma^{\alpha\beta\chi} == 0$	1
$0^{+}_{\cdot}\tau^{\perp} == 0$	$\partial_{\beta}\partial_{\alpha}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == 0$	1
$0^{+}_{\cdot}\tau^{\parallel} == 0$	$\partial_{\beta}\partial_{\alpha}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_{\beta}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha}{}_{\alpha}$	1
$0^{+}_{\cdot}\sigma^{\parallel} == 0$	$\partial_{\beta}\sigma^{\alpha}{}_{\alpha}{}^{\beta} == 0$	1
$1^{-}_{\cdot}\tau^{\perp}{}^{\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\beta}$	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
$1^{-}_{\cdot}\sigma^{\perp}{}^{\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\sigma^{\beta\alpha\chi} == 0$	3
$1^{+}_{\cdot}\tau^{\parallel}{}^{\alpha\beta} == 0$	$\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} + \partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} == \partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta} + \partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi} + \partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha}$	3
$1^{+}_{\cdot}\sigma^{\perp}{}^{\alpha\beta} == 0$	$\partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\chi\beta\delta} + \partial_{\delta}\partial^{\delta}\partial_{\chi}\sigma^{\chi\alpha\beta} == \partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta}$	3
$2^{+}_{\cdot}\tau^{\parallel}{}^{\alpha\beta} == 0$	$4\,\partial_{\delta}\partial_{\chi}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\delta} + 2\,\partial_{\delta}\partial^{\delta}\partial^{\beta}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\alpha\beta} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau\,(\Delta+\mathcal{K})^{\beta\alpha} + 2\ \eta^{\alpha\beta}\ \partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial_{\chi}\tau\,(\Delta+\mathcal{K})^{\chi\delta} == 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\beta\chi} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau\,(\Delta+\mathcal{K})^{\chi\beta} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\alpha\chi} + 3\,\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau\,(\Delta+\mathcal{K})^{\chi\alpha} + 2\ \eta^{\alpha\beta}\ \partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\tau\,(\Delta+\mathcal{K})^{\chi}{}_{\chi}$	5
$2^{+}_{\cdot}\sigma^{\parallel}{}^{\alpha\beta} == 0$	$3\,\partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\chi\beta\delta} + 3\,\partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta} + 2\ \eta^{\alpha\beta}\ \partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\sigma^{\chi}{}_{\chi}{}^{\delta} == 2\,\partial_{\delta}\partial^{\beta}\partial^{\alpha}\sigma^{\chi}{}_{\chi}{}^{\delta} + 3\,(\partial_{\delta}\partial^{\delta}\partial_{\chi}\sigma^{\alpha\beta\chi} + \partial_{\delta}\partial^{\delta}\partial_{\chi}\sigma^{\beta\alpha\chi})$	5
Total expected gauge generators:		29

Massive spectrum

(No particles)

Massless spectrum



Massless particle

Pole residue:	$-\frac{3}{r_{\cdot}{}_{1}} - \frac{3}{r_{\cdot}{}_{1}+r_{\cdot}{}_{5}} + \frac{8}{2\,r_{\cdot}{}_{1}+r_{\cdot}{}_{5}} > 0$
Polarisations:	2

Unitarity conditions

$(r_{\cdot}{}_{1} < 0\ \&\&\ (r_{\cdot}{}_{5} < -r_{\cdot}{}_{1}\ ||\ r_{\cdot}{}_{5} > -2\,r_{\cdot}{}_{1}))\ ||\ (r_{\cdot}{}_{1} > 0\ \&\&\ -2\,r_{\cdot}{}_{1} < r_{\cdot}{}_{5} < -r_{\cdot}{}_{1})$