

PSALTer results panel

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$$\iiint\left(\frac{1}{6}(-4t_{\frac{2}{3}}\mathcal{A}^{\alpha\prime}_{\alpha}\mathcal{A}_{\prime\theta}^{\theta}+6\mathcal{A}^{\alpha\beta\chi}\sigma_{\alpha\beta\chi}+6f^{\alpha\beta}\tau(\Delta+\mathcal{K})_{\alpha\beta}+8t_{\frac{2}{3}}\mathcal{A}_{\alpha\theta}^{\theta}\partial_{\prime}f^{\alpha\prime}-3r_{\frac{2}{3}}\partial_{\beta}\mathcal{A}_{\prime\theta}^{\theta}\partial^{\prime}\mathcal{A}^{\alpha\beta}_{\alpha}-3r_{\frac{2}{3}}\partial_{\prime}\mathcal{A}_{\beta\theta}^{\theta}\partial^{\prime}\mathcal{A}^{\alpha\beta}_{\alpha}-8t_{\frac{2}{3}}\mathcal{A}_{\prime\theta}^{\theta}\partial^{\prime}f^{\alpha}_{\alpha}+4t_{\frac{2}{3}}\partial_{\prime}f^{\theta}_{\theta}\partial^{\prime}f^{\alpha}_{\alpha}-3r_{\frac{2}{3}}\partial_{\alpha}\mathcal{A}^{\alpha\beta\prime}_{\beta}\partial_{\theta}\mathcal{A}_{\beta\prime}^{\theta}+6r_{\frac{2}{3}}\partial^{\prime}\mathcal{A}^{\alpha\beta}_{\alpha}\partial_{\theta}\mathcal{A}_{\beta\prime}^{\theta}-3r_{\frac{2}{3}}\partial_{\alpha}\mathcal{A}^{\alpha\beta\prime}_{\beta}\partial_{\theta}\mathcal{A}_{\prime\beta}^{\theta}+6r_{\frac{2}{3}}\partial^{\prime}\mathcal{A}^{\alpha\beta}_{\alpha}\partial_{\theta}\mathcal{A}_{\prime\beta}^{\theta}+4t_{\frac{2}{3}}\partial_{\prime}f^{\alpha\prime}\partial_{\theta}f^{\theta}_{\alpha}-8t_{\frac{2}{3}}\partial^{\prime}f^{\alpha}_{\alpha}\partial_{\theta}f^{\theta}_{\prime}+8r_{\frac{2}{2}}\partial_{\beta}\mathcal{A}_{\alpha\prime\theta}\partial^{\theta}\mathcal{A}^{\alpha\beta\prime}_{\beta}-4r_{\frac{2}{2}}\partial_{\beta}\mathcal{A}_{\alpha\theta\prime}\partial^{\theta}\mathcal{A}^{\alpha\beta\prime}_{\beta}+4r_{\frac{2}{2}}\partial_{\beta}\mathcal{A}_{\prime\theta\alpha}\partial^{\theta}\mathcal{A}^{\alpha\beta\prime}_{\beta}-24r_{\frac{2}{3}}\partial_{\beta}\mathcal{A}_{\prime\theta\alpha}\partial^{\theta}\mathcal{A}^{\alpha\beta\prime}_{\beta}-2r_{\frac{2}{2}}\partial_{\prime}\mathcal{A}_{\alpha\beta\theta}\partial^{\theta}\mathcal{A}^{\alpha\beta\prime}_{\beta}+2r_{\frac{2}{2}}\partial_{\theta}\mathcal{A}_{\alpha\beta\prime}\partial^{\theta}\mathcal{A}^{\alpha\beta\prime}_{\beta}-4r_{\frac{2}{2}}\partial_{\theta}\mathcal{A}_{\alpha\prime\beta}\partial^{\theta}\mathcal{A}^{\alpha\beta\prime}_{\beta}+6r_{\frac{2}{5}}\partial_{\prime}\mathcal{A}_{\theta}^{\kappa}_{\kappa}\partial^{\theta}\mathcal{A}^{\alpha\prime}_{\alpha}-6r_{\frac{2}{5}}\partial_{\theta}\mathcal{A}_{\prime\kappa}^{\kappa}\partial^{\theta}\mathcal{A}^{\alpha\prime}_{\alpha}-6r_{\frac{2}{5}}\partial_{\alpha}\mathcal{A}^{\alpha\prime\theta}\partial_{\kappa}\mathcal{A}_{\prime\theta}^{\kappa}+12r_{\frac{2}{5}}\partial^{\theta}\mathcal{A}^{\alpha\prime}_{\alpha}\partial_{\kappa}\mathcal{A}_{\prime\theta}^{\kappa}+6r_{\frac{2}{5}}\partial_{\alpha}\mathcal{A}^{\alpha\prime\theta}\partial_{\kappa}\mathcal{A}_{\theta\prime}^{\kappa}-12r_{\frac{2}{5}}\partial^{\theta}\mathcal{A}^{\alpha\prime}_{\alpha}\partial_{\kappa}\mathcal{A}_{\theta}^{\kappa}_{\prime})) [t,x,y,z]dzdydxdt$$

Wave operator

$0^+ \mathcal{A}^{\parallel} \dagger$	$0^+ f^{\parallel}$	$0^+ f^{\perp}$	$0^+ \mathcal{A}^{\parallel}$										
$0^+ \mathcal{A}^{\parallel} \dagger$	t_3	$-i \sqrt{2} k t_3$	0	0									
$0^+ f^{\parallel} \dagger$	$i \sqrt{2} k t_3$	$2 k^2 t_3$	0	0									
$0^+ f^{\perp} \dagger$	0	0	0	0									
$0^+ \mathcal{A}^{\parallel} \dagger$	0	0	0	$k^2 r_2$	$1^+ \mathcal{A}^{\parallel}_{\alpha\beta}$	$1^+ \mathcal{A}^{\perp}_{\alpha\beta}$	$1^+ f^{\parallel}_{\alpha\beta}$	$1^+ \mathcal{A}^{\parallel}_{\alpha}$	$1^+ \mathcal{A}^{\perp}_{\alpha}$	$1^+ f^{\parallel}_{\alpha}$	$1^+ f^{\perp}_{\alpha}$		
	$1^+ \mathcal{A}^{\parallel} \dagger^{\alpha\beta}$	$k^2 (2 r_3 + r_5)$	0	0	0	0	0	0	0	0	0		
	$1^+ \mathcal{A}^{\perp} \dagger^{\alpha\beta}$	0	0	0	0	0	0	0	0	0	0		
	$1^+ f^{\parallel} \dagger^{\alpha\beta}$	0	0	0	0	0	0	0	0	0	0		
	$1^+ \mathcal{A}^{\parallel} \dagger^{\alpha}$	0	0	0	$k^2 (\frac{r_3}{2} + r_5) + \frac{2 t_3}{3}$	$-\frac{\sqrt{2} t_3}{3}$	0	$-\frac{2}{3} i k t_3$					
	$1^+ \mathcal{A}^{\perp} \dagger^{\alpha}$	0	0	0	$-\frac{\sqrt{2} t_3}{3}$	$\frac{t_3}{3}$	0	$\frac{1}{3} i \sqrt{2} k t_3$					
	$1^+ f^{\parallel} \dagger^{\alpha}$	0	0	0	0	0	0	0					
	$1^+ f^{\perp} \dagger^{\alpha}$	0	0	0	$\frac{2 i k t_3}{3}$	$-\frac{1}{3} i \sqrt{2} k t_3$	0	$\frac{2 k^2 t_3}{3}$	$2^+ \mathcal{A}^{\parallel}_{\alpha\beta}$	$2^+ f^{\parallel}_{\alpha\beta}$	$2^+ \mathcal{A}^{\parallel}_{\alpha\beta\chi}$		
									$2^+ \mathcal{A}^{\parallel} \dagger^{\alpha\beta}$	$-\frac{3 k^2 r_3}{2}$	0	0	
									$2^+ f^{\parallel} \dagger^{\alpha\beta}$	0	0	0	
									$2^+ \mathcal{A}^{\parallel} \dagger^{\alpha\beta\chi}$	0	0	0	

Saturated propagator

$0^+_{\cdot}\sigma^{\parallel}$	$0^+_{\cdot}\tau^{\parallel}$	$0^+_{\cdot}\tau^{\perp}$	$0^+_{\cdot}\sigma^{\parallel}$										
$0^+_{\cdot}\sigma^{\parallel}\dagger$	$\frac{1}{(1+2k^2)^2t_{\frac{2}{3}}}$	$-\frac{i\sqrt{2}k}{(1+2k^2)^2t_{\frac{2}{3}}}$	0	0									
$0^+_{\cdot}\tau^{\parallel}\dagger$	$\frac{i\sqrt{2}k}{(1+2k^2)^2t_{\frac{2}{3}}}$	$\frac{2k^2}{(1+2k^2)^2t_{\frac{2}{3}}}$	0	0									
$0^+_{\cdot}\tau^{\perp}\dagger$	0	0	0	0									
$0^+_{\cdot}\sigma^{\parallel}\dagger$	0	0	0	$\frac{1}{k^2r_{\frac{2}{2}}}$	$1^+_{\cdot}\sigma^{\parallel}_{\alpha\beta}$	$1^+_{\cdot}\sigma^{\perp}_{\alpha\beta}$	$1^+_{\cdot}\tau^{\parallel}_{\alpha\beta}$	$1^+_{\cdot}\sigma^{\parallel}_{\alpha}$	$1^+_{\cdot}\sigma^{\perp}_{\alpha}$	$1^+_{\cdot}\tau^{\parallel}_{\alpha}$	$1^+_{\cdot}\tau^{\perp}_{\alpha}$		
	$1^+_{\cdot}\sigma^{\parallel}\dagger^{\alpha\beta}$	$\frac{1}{k^2(2r_{\frac{2}{3}}+r_{\frac{2}{5}})}$	0	0									
	$1^+_{\cdot}\sigma^{\perp}\dagger^{\alpha\beta}$	0	0	0									
	$1^+_{\cdot}\tau^{\parallel}\dagger^{\alpha\beta}$	0	0	0									
	$1^+_{\cdot}\sigma^{\parallel}\dagger^{\alpha}$	0	0	0	$\frac{2}{k^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})}$	$\frac{2\sqrt{2}}{k^2(1+2k^2)(r_{\frac{2}{3}}+2r_{\frac{2}{5}})}$	0	$\frac{4i}{k(1+2k^2)(r_{\frac{2}{3}}+2r_{\frac{2}{5}})}$					
	$1^+_{\cdot}\sigma^{\perp}\dagger^{\alpha}$	0	0	0	$\frac{2\sqrt{2}}{k^2(1+2k^2)(r_{\frac{2}{3}}+2r_{\frac{2}{5}})}$	$\frac{3k^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})+4t_{\frac{2}{3}}}{(k+2k^3)^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})t_{\frac{2}{3}}}$	0	$\frac{i\sqrt{2}(3k^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})+4t_{\frac{2}{3}})}{k(1+2k^2)^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})t_{\frac{2}{3}}}$					
	$1^+_{\cdot}\tau^{\parallel}\dagger^{\alpha}$	0	0	0	0	0	0	0					
	$1^+_{\cdot}\tau^{\perp}\dagger^{\alpha}$	0	0	0	$-\frac{4i}{k(1+2k^2)(r_{\frac{2}{3}}+2r_{\frac{2}{5}})}$	$-\frac{i\sqrt{2}(3k^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})+4t_{\frac{2}{3}})}{k(1+2k^2)^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})t_{\frac{2}{3}}}$	0	$\frac{6k^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})+8t_{\frac{2}{3}}}{(1+2k^2)^2(r_{\frac{2}{3}}+2r_{\frac{2}{5}})t_{\frac{2}{3}}}$	$2^+_{\cdot}\sigma^{\parallel}_{\alpha\beta}$	$2^+_{\cdot}\tau^{\parallel}_{\alpha\beta}$	$2^+_{\cdot}\sigma^{\parallel}_{\alpha\beta\chi}$		
		$2^+_{\cdot}\sigma^{\parallel}\dagger^{\alpha\beta}$	$-\frac{2}{3k^2r_{\frac{2}{3}}}$	0	0								
		$2^+_{\cdot}\tau^{\parallel}\dagger^{\alpha\beta}$	0	0	0								
		$2^+_{\cdot}\sigma^{\parallel}\dagger^{\alpha\beta\chi}$	0	0	0								

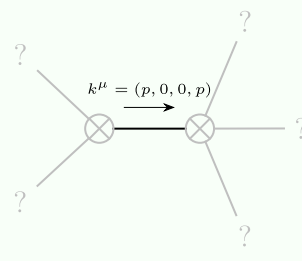
Source constraints

Spin-parity form	Covariant form	Multiplicities
$0^+_{\cdot}\tau^{\perp}==0$	$\partial_{\beta}\partial_{\alpha}\tau(\Delta+\mathcal{K})^{\alpha\beta}==0$	1
$-2ik0^+_{\cdot}\sigma^{\parallel}+0^+_{\cdot}\tau^{\parallel}==0$	$\partial_{\beta}\partial_{\alpha}\tau(\Delta+\mathcal{K})^{\alpha\beta}==\partial_{\beta}\partial^{\beta}\tau(\Delta+\mathcal{K})^{\alpha}_{\alpha}$	1
$2ik1^+_{\cdot}\sigma^{\perp\alpha}+1^+_{\cdot}\tau^{\perp\alpha}==0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\tau(\Delta+\mathcal{K})^{\beta\chi}==\partial_{\chi}\partial^{\chi}\partial_{\beta}\tau(\Delta+\mathcal{K})^{\alpha\beta}+2\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\sigma^{\beta\alpha\chi}$	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
$1^+_{\cdot}\tau^{\parallel\alpha\beta}==0$	$\partial_{\chi}\partial^{\alpha}\tau(\Delta+\mathcal{K})^{\beta\chi}+\partial_{\chi}\partial^{\beta}\tau(\Delta+\mathcal{K})^{\chi\alpha}+\partial_{\chi}\partial^{\chi}\tau(\Delta+\mathcal{K})^{\alpha\beta}==\partial_{\chi}\partial^{\alpha}\tau(\Delta+\mathcal{K})^{\chi\beta}+\partial_{\chi}\partial^{\beta}\tau(\Delta+\mathcal{K})^{\alpha\chi}+\partial_{\chi}\partial^{\chi}\tau(\Delta+\mathcal{K})^{\beta\alpha}$	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
$2^+_{\cdot}\sigma^{\alpha\beta\chi}==0$	$3\partial_{\epsilon}\partial_{\delta}\partial^{\chi}\partial^{\alpha}\sigma^{\delta\beta\epsilon}+3\partial_{\epsilon}\partial^{\epsilon}\partial^{\chi}\partial_{\delta}\sigma^{\delta\beta}_{\delta}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\beta}\sigma^{\alpha\chi}_{\delta}+4\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\beta}\sigma^{\chi\alpha\delta}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\beta}\sigma^{\delta\alpha\chi}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\chi}\sigma^{\beta\alpha\delta}+4\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\chi}\sigma^{\delta\alpha\beta}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\sigma^{\alpha\beta\chi}+3\eta^{\beta\chi}\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\delta}\sigma^{\delta}_{\epsilon}+3\eta^{\alpha\chi}\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\delta}\sigma^{\delta\beta\epsilon}+3\eta^{\beta\chi}\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\delta}\sigma^{\delta\alpha}_{\delta}==3\partial_{\epsilon}\partial_{\delta}\partial^{\chi}\partial^{\beta}\sigma^{\delta\alpha\epsilon}+3\partial_{\epsilon}\partial^{\epsilon}\partial^{\chi}\partial^{\beta}\sigma^{\delta\alpha}_{\delta}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\alpha}\sigma^{\beta\chi\delta}+4\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\alpha}\sigma^{\chi\beta\delta}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\alpha}\sigma^{\delta\beta\chi}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\chi}\sigma^{\alpha\beta\delta}+2\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\sigma^{\beta\alpha\chi}+4\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\sigma^{\chi\alpha\beta}+3\eta^{\alpha\chi}\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial^{\beta}\sigma^{\delta}_{\epsilon}+3\eta^{\beta\chi}\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\delta}\sigma^{\delta\alpha\epsilon}+3\eta^{\alpha\chi}\partial_{\phi}\partial^{\phi}\partial_{\epsilon}\partial_{\delta}\sigma^{\delta\beta}_{\delta}$	5
$2^+_{\cdot}\tau^{\parallel\alpha\beta}==0$	$4\partial_{\delta}\partial_{\chi}\partial^{\beta}\partial^{\alpha}\tau(\Delta+\mathcal{K})^{\chi\delta}+2\partial_{\delta}\partial^{\delta}\partial^{\beta}\partial^{\alpha}\tau(\Delta+\mathcal{K})^{\chi}_{\chi}+3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau(\Delta+\mathcal{K})^{\alpha\beta}+3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}\tau(\Delta+\mathcal{K})^{\beta\alpha}+2\eta^{\alpha\beta}\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial_{\chi}\tau(\Delta+\mathcal{K})^{\chi\delta}==3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau(\Delta+\mathcal{K})^{\beta\chi}+3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}\tau(\Delta+\mathcal{K})^{\chi\beta}+3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau(\Delta+\mathcal{K})^{\alpha\chi}+3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}\tau(\Delta+\mathcal{K})^{\chi\alpha}+2\eta^{\alpha\beta}\partial_{\epsilon}\partial^{\epsilon}\partial_{\delta}\partial^{\delta}\tau(\Delta+\mathcal{K})^{\chi}_{\chi}$	5
Total expected gauge generators:		24

Massive spectrum

(No particles)

Massless spectrum



Pole residue: $-\frac{26}{r_{\frac{2}{3}}}+\frac{39}{2r_{\frac{2}{3}}+r_{\frac{2}{5}}}-\frac{216}{r_{\frac{2}{3}}+2r_{\frac{2}{5}}}>0$

Polarisations: 2

Unitarity conditions

$$(r_{\frac{2}{3}}<0\ \&\&\ (r_{\frac{2}{5}}<-\frac{r_{\frac{2}{3}}}{2}\ ||\ r_{\frac{2}{5}}>-2r_{\frac{2}{3}}))\ ||\ (r_{\frac{2}{3}}>0\ \&\&\ -2r_{\frac{2}{3}}<r_{\frac{2}{5}}<-\frac{r_{\frac{2}{3}}}{2})$$