PSALTer results panel

Wave operator and propagator

	$1^{+}\mathcal{A}^{\parallel}_{\alpha\beta}$	$1^{+}\mathcal{A}^{\perp}_{\alpha\beta}$	$1^{+}f^{\parallel}_{\alpha\beta}$	$1^{-}\mathcal{B}_{\alpha}$	$1^{-}\mathcal{A}^{\parallel}_{\alpha}$	$1^{-}\mathcal{A}^{\perp}_{\alpha}$	$1^{-}f^{\parallel}_{\alpha}$	$1^{-}f^{\perp}_{\alpha}$
$1^{+}\mathcal{A}^{\parallel}{}^{\dagger\,\alpha\beta}$	$\frac{1}{6}(-6\lambda+6k^2(2r_3+r_5)+t_1+4t_2)$	$-\frac{6\lambda+t_1-2t_2}{3\sqrt{2}}$	$-\frac{i\,k(6\lambda+t_1-2t_2)}{3\sqrt{2}}$	0	0	0 0		0
$1^{+}\mathcal{A}^{\perp}{}^{\dagger\,\alpha\beta}$	$-\frac{6\lambda+t_1-2t_2}{3\sqrt{2}}$	$\frac{t_1+t_2}{3}$	$\frac{1}{3}i\,k(t_1+t_2)$	0	0	0 0		0
$1^{+}f^{\parallel}{}^{\dagger\,\alpha\beta}$	$\frac{i\,k(6\lambda+t_1-2t_2)}{3\sqrt{2}}$	$-\frac{1}{3}i\,k(t_1+t_2)$	$\frac{1}{3}k^2(t_1+t_2)$	0	0	0 0		0
$1^{-}\mathcal{B}^{\dagger\,\alpha}$	0	0	0	$-6\lambda+\frac{v}{2}+4k^2(r_1+r_4+r_5)$	$-2\lambda+\frac{v}{6}+2k^2(r_1+r_4+r_5)$	$\frac{12\lambda-v}{6\sqrt{2}}$	0	$\frac{1}{6}i\,k(12\lambda-v)$
$1^{-}\mathcal{A}^{\parallel}{}^{\dagger\,\alpha}$	0	0	0	$-2\lambda+\frac{v}{6}+2k^2(r_1+r_4+r_5)$	$\frac{1}{18}(-6\lambda+v+3(6k^2(r_1+r_4+r_5)+t_1))$	$\frac{24\lambda-v+6t_1}{18\sqrt{2}}$	0	$\frac{1}{18}i\,k(24\lambda-v+6t_1)$
$1^{-}\mathcal{A}^{\perp}{}^{\dagger\,\alpha}$	0	0	0	$\frac{12\lambda-v}{6\sqrt{2}}$	$\frac{24\lambda-v+6t_1}{18\sqrt{2}}$	$\frac{1}{36}(12\lambda+v+12t_1)$	0	$\frac{i\,k(12\lambda+v+12t_1)}{18\sqrt{2}}$
$1^{-}f^{\parallel}{}^{\dagger\,\alpha}$	0	0	0	0	0	0 0		0
$1^{-}f^{\perp}{}^{\dagger\,\alpha}$	0	0	0	$k(-2i\lambda+\frac{i\,v}{6})$	$-\frac{1}{18}i\,k(24\lambda-v+6t_1)$	$-\frac{i\,k(12\lambda+v+12t_1)}{18\sqrt{2}}$	0	$\frac{1}{18}k^2(12\lambda+v+12t_1)$

	$2^{+}\sigma^{\parallel}_{\alpha\beta}$	$2^{+}\tau^{\parallel}_{\alpha\beta}$	$2^{-}\sigma^{\parallel}_{\alpha\beta\chi}$
$2^{+}\sigma^{\parallel}{}^{\dagger\,\alpha\beta}$	$\frac{k^2(\lambda+t_1)}{k^4(2r_1-2r_3+r_4)(\lambda+t_1)-\frac{1}{2}k^2\lambda(2\lambda+t_1)}$	$\frac{i\sqrt{2}(2\lambda+t_1)}{2k^3(2r_1-2r_3+r_4)(\lambda+t_1)-k\lambda(2\lambda+t_1)}$	0
$2^{+}\tau^{\parallel}{}^{\dagger\,\alpha\beta}$	$-\frac{i\sqrt{2}(2\lambda+t_1)}{2k^3(2r_1-2r_3+r_4)(\lambda+t_1)-k\lambda(2\lambda+t_1)}$	$\frac{\lambda+k^2(2r_1-2r_3+r_4)+\frac{t_1}{2}}{k^4(2r_1-2r_3+r_4)(\lambda+t_1)-\frac{1}{2}k^2\lambda(2\lambda+t_1)}$	0
$2^{-}\sigma^{\parallel}{}^{\dagger\,\alpha\beta\chi}$	0	0	$\frac{1}{\lambda+k^2r_1+\frac{t_1}{2}}$

$$
\begin{aligned}
S ==& \iiiint(\phi\,\rho+\sigma^{\alpha\beta\chi}\,\mathcal{A}_{\alpha\beta\chi}+\tau^{\alpha\beta}\,f_{\alpha\beta}+\mathcal{J}^{\alpha}\,\mathcal{B}_{\alpha}-\tfrac{1}{18}v.(\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}+6\,\mathcal{A}_{\alpha}{}^{\beta}{}_{\beta}\,\mathcal{B}^{\alpha}-9\,\mathcal{B}_{\alpha}\,\mathcal{B}^{\alpha}-6\,\mathcal{B}^{\alpha}\,\partial_{\alpha}f^{\beta}{}_{\beta}+6\,\mathcal{B}^{\alpha}\,\partial_{\beta}f_{\alpha}{}^{\beta}-2\,\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}\,\partial_{\beta}f^{\alpha\beta}+\\
&2\,\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}\,\partial^{\beta}f^{\alpha}{}_{\alpha}-\partial_{\beta}f^{\chi}{}_{\chi}\,\partial^{\beta}f^{\alpha}{}_{\alpha}-\partial_{\beta}f^{\alpha\beta}\,\partial_{\chi}f_{\alpha}{}^{\chi}+2\,\partial^{\beta}f^{\alpha}{}_{\alpha}\,\partial_{\chi}f_{\beta}{}^{\chi})+\tfrac{1}{6}\lambda.(8\,\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}+24\,\mathcal{A}_{\alpha}{}^{\beta}{}_{\beta}\,\mathcal{B}^{\alpha}-36\,\mathcal{B}_{\alpha}\,\mathcal{B}^{\alpha}-\\
&36\,\partial_{\alpha}\mathcal{B}^{\alpha}+12\,f^{\alpha\beta}\,\partial_{\beta}\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}-12\,\partial_{\beta}\mathcal{A}^{\alpha\beta}{}_{\alpha}-4\,\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}\,\partial_{\beta}f^{\alpha\beta}-24\,f^{\alpha\beta}\,\partial_{\beta}\mathcal{B}_{\alpha}+24\,f^{\alpha}{}_{\alpha}\,\partial_{\beta}\mathcal{B}^{\beta}+4\,\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}\,\partial^{\beta}f^{\alpha}{}_{\alpha}-\\
&2\,\partial_{\beta}f^{\chi}{}_{\chi}\,\partial^{\beta}f^{\alpha}{}_{\alpha}-12\,f^{\alpha\beta}\,\partial_{\chi}\mathcal{A}_{\alpha}{}^{\chi}{}_{\beta}+12\,f^{\alpha}{}_{\alpha}\,\partial_{\chi}\mathcal{A}^{\beta\chi}{}_{\beta}-2\,\partial_{\beta}f^{\alpha\beta}\,\partial_{\chi}f_{\alpha}{}^{\chi}+4\,\partial^{\beta}f^{\alpha}{}_{\alpha}\,\partial_{\chi}f_{\beta}{}^{\chi}-6\,\partial_{\alpha}f_{\beta\chi}\,\partial^{\chi}f^{\alpha\beta}-\\
&3\,\partial_{\alpha}f_{\chi\beta}\,\partial^{\chi}f^{\alpha\beta}+3\,\partial_{\beta}f_{\alpha\chi}\,\partial^{\chi}f^{\alpha\beta}+3\,\partial_{\chi}f_{\alpha\beta}\,\partial^{\chi}f^{\alpha\beta}+3\,\partial_{\chi}f_{\beta\alpha}\,\partial^{\chi}f^{\alpha\beta}+12\,\mathcal{A}_{\alpha\chi\beta}(\mathcal{A}^{\alpha\beta\chi}+\partial^{\chi}f^{\alpha\beta}))+\tfrac{1}{6}t_2\\
&((4\,\mathcal{A}_{\beta\chi\alpha}+2\,\partial_{\alpha}f_{\beta\chi}-\partial_{\alpha}f_{\chi\beta}-\partial_{\beta}f_{\alpha\chi}+\partial_{\chi}f_{\alpha\beta}-\partial_{\chi}f_{\beta\alpha})\,\partial^{\chi}f^{\alpha\beta}-4\,\mathcal{A}_{\alpha\chi\beta}(\mathcal{A}^{\alpha\beta\chi}+\partial^{\chi}f^{\alpha\beta})+2\,\mathcal{A}_{\alpha\beta\chi}(\mathcal{A}^{\alpha\beta\chi}+2\,\partial^{\chi}f^{\alpha\beta}))+\\
&\tfrac{1}{3}t_1(\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}-2\,\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}\,\partial_{\beta}f^{\alpha\beta}+2\,\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}\,\partial^{\beta}f^{\alpha}{}_{\alpha}-\partial_{\beta}f^{\chi}{}_{\chi}\,\partial^{\beta}f^{\alpha}{}_{\alpha}-\partial_{\beta}f^{\alpha\beta}\,\partial_{\chi}f_{\alpha}{}^{\chi}+2\,\partial^{\beta}f^{\alpha}{}_{\alpha}\,\partial_{\chi}f_{\beta}{}^{\chi}+\\
&2\,\mathcal{A}_{\beta\chi\alpha}\,\partial^{\chi}f^{\alpha\beta}-2\,\partial_{\alpha}f_{\beta\chi}\,\partial^{\chi}f^{\alpha\beta}-2\,\partial_{\alpha}f_{\chi\beta}\,\partial^{\chi}f^{\alpha\beta}+\partial_{\beta}f_{\alpha\chi}\,\partial^{\chi}f^{\alpha\beta}+2\,\partial_{\chi}f_{\alpha\beta}\,\partial^{\chi}f^{\alpha\beta}+\\
&\partial_{\chi}f_{\beta\alpha}\,\partial^{\chi}f^{\alpha\beta}+\mathcal{A}_{\alpha\beta\chi}(\mathcal{A}^{\alpha\beta\chi}+2\,\partial^{\chi}f^{\alpha\beta})+\mathcal{A}_{\alpha\chi\beta}(\mathcal{A}^{\alpha\beta\chi}+4\,\partial^{\chi}f^{\alpha\beta}))+\\
&r_5(4\,\partial_{\alpha}\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}\,\partial^{\beta}\mathcal{B}^{\alpha}-4\,\partial_{\alpha}\mathcal{B}_{\beta}\,\partial^{\beta}\mathcal{B}^{\alpha}-4\,\partial_{\beta}\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}\,\partial^{\beta}\mathcal{B}^{\alpha}+4\,\partial_{\beta}\mathcal{B}_{\alpha}\,\partial^{\beta}\mathcal{B}^{\alpha}+4\,\partial^{\beta}\mathcal{B}^{\alpha}\,\partial_{\chi}\mathcal{A}_{\alpha}{}^{\chi}{}_{\beta}-4\,\partial^{\beta}\mathcal{B}^{\alpha}\,\partial_{\chi}\mathcal{A}_{\beta}{}^{\chi}{}_{\alpha}+\\
&\partial_{\beta}\mathcal{A}_{\chi}{}^{\delta}{}_{\delta}\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}-\partial_{\chi}\mathcal{A}_{\beta}{}^{\delta}{}_{\delta}\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}-\partial_{\alpha}\mathcal{A}^{\alpha\beta\chi}\,\partial_{\delta}\mathcal{A}_{\beta}{}^{\delta}{}_{\chi}+2\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\delta}\mathcal{A}_{\beta}{}^{\delta}{}_{\chi}+\partial_{\alpha}\mathcal{A}^{\alpha\beta\chi}\,\partial_{\delta}\mathcal{A}_{\chi}{}^{\delta}{}_{\beta}-2\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\delta}\mathcal{A}_{\chi}{}^{\delta}{}_{\beta})+\\
&r_4(-4\,\partial_{\alpha}\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}\,\partial^{\beta}\mathcal{B}^{\alpha}+4\,\partial_{\alpha}\mathcal{B}_{\beta}\,\partial^{\beta}\mathcal{B}^{\alpha}-4\,\partial_{\beta}\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}\,\partial^{\beta}\mathcal{B}^{\alpha}+4\,\partial_{\beta}\mathcal{B}_{\alpha}\,\partial^{\beta}\mathcal{B}^{\alpha}+4\,\partial^{\beta}\mathcal{B}^{\alpha}\,\partial_{\chi}\mathcal{A}_{\alpha}{}^{\chi}{}_{\beta}+\\
&4\,\partial^{\beta}\mathcal{B}^{\alpha}\,\partial_{\chi}\mathcal{A}_{\beta}{}^{\chi}{}_{\alpha}+8\,\partial_{\alpha}\mathcal{B}^{\alpha}(2\,\partial_{\beta}\mathcal{B}^{\beta}+\partial_{\chi}\mathcal{A}^{\beta\chi}{}_{\beta})-\partial_{\beta}\mathcal{A}_{\chi}{}^{\delta}{}_{\delta}\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}-\partial_{\chi}\mathcal{A}_{\beta}{}^{\delta}{}_{\delta}\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}-\\
&\partial_{\alpha}\mathcal{A}^{\alpha\beta\chi}\,\partial_{\delta}\mathcal{A}_{\beta}{}^{\delta}{}_{\chi}+2\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\delta}\mathcal{A}_{\beta}{}^{\delta}{}_{\chi}-\partial_{\alpha}\mathcal{A}^{\alpha\beta\chi}\,\partial_{\delta}\mathcal{A}_{\chi}{}^{\delta}{}_{\beta}+2\,\partial^{\chi}\mathcal{A}^{\alpha\beta}{}_{\alpha}\,\partial_{\delta}\mathcal{A}_{\chi}{}^{\delta}{}_{\beta})+\\
&\tfrac{1}{3}r_2(4\,\partial_{\beta}\mathcal{A}_{\alpha\chi\delta}-2\,\partial_{\beta}\mathcal{A}_{\alpha\delta\chi}+2\,\partial_{\beta}\mathcal{A}_{\chi\delta\alpha}-\partial_{\chi}\mathcal{A}_{\alpha\beta\delta}+\partial_{\delta}\mathcal{A}_{\alpha\beta\chi}-2\,\partial_{\delta}\mathcal{A}_{\alpha\chi\beta})\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi}-\\
&4r_3(\partial_{\alpha}\mathcal{B}^{\alpha}\,\partial_{\beta}\mathcal{B}^{\beta}-2\,\partial_{\alpha}\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}\,\partial^{\beta}\mathcal{B}^{\alpha}+2\,\partial_{\alpha}\mathcal{B}_{\beta}\,\partial^{\beta}\mathcal{B}^{\alpha}+2\,\partial^{\beta}\mathcal{B}^{\alpha}\,\partial_{\chi}\mathcal{A}_{\beta}{}^{\chi}{}_{\alpha}+\partial_{\beta}\mathcal{A}_{\chi\delta\alpha}\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi})+\\
&\tfrac{2}{3}r_1(6\,\partial_{\alpha}\mathcal{B}^{\alpha}\,\partial_{\beta}\mathcal{B}^{\beta}-6\,\partial_{\alpha}\mathcal{A}_{\beta}{}^{\chi}{}_{\chi}\,\partial^{\beta}\mathcal{B}^{\alpha}+6\,\partial_{\alpha}\mathcal{B}_{\beta}\,\partial^{\beta}\mathcal{B}^{\alpha}-6\,\partial_{\beta}\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}\,\partial^{\beta}\mathcal{B}^{\alpha}+6\,\partial_{\beta}\mathcal{B}_{\alpha}\,\partial^{\beta}\mathcal{B}^{\alpha}+\\
&6\,\partial^{\beta}\mathcal{B}^{\alpha}\,\partial_{\chi}\mathcal{A}_{\alpha}{}^{\chi}{}_{\beta}+6\,\partial^{\beta}\mathcal{B}^{\alpha}\,\partial_{\chi}\mathcal{A}_{\beta}{}^{\chi}{}_{\alpha}-2\,\partial_{\beta}\mathcal{A}_{\alpha\chi\delta}\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi}+\partial_{\beta}\mathcal{A}_{\alpha\delta\chi}\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi}+2\,\partial_{\beta}\mathcal{A}_{\chi\delta\alpha}\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi}-\\
&\partial_{\chi}\mathcal{A}_{\alpha\beta\delta}\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi}+\partial_{\delta}\mathcal{A}_{\alpha\beta\chi}\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi}+\partial_{\delta}\mathcal{A}_{\alpha\chi\beta}\,\partial^{\delta}\mathcal{A}^{\alpha\beta\chi}))[t,x,y,z]\,dz\,dy\,dx\,dt
\end{aligned}
$$

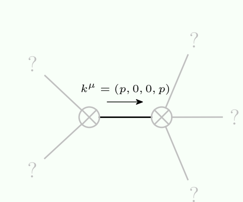
	$0^{+}\mathcal{J}$	$0^{+}\rho$	$0^{+}\sigma^{\parallel}$	$0^{+}\tau^{\parallel}$	$0^{+}\tau^{\perp}$	$0^{-}\sigma^{\parallel}$
$0^{+}\mathcal{J}^{\dagger}$	$\frac{6v}{49(-12\lambda^2+\lambda v+2k^2v(r_1-r_3+2r_4))}$	0	$-\frac{\sqrt{6}v}{49(-12\lambda^2+\lambda v+2k^2v(r_1-r_3+2r_4))}$	$\frac{i\sqrt{3}(12\lambda-v)}{7k(-12\lambda^2+\lambda v+2k^2v(r_1-r_3+2r_4))}$	0	0
$0^{+}\rho^{\dagger}$	0 0		0	0 0		0
$0^{+}\sigma^{\parallel}{}^{\dagger}$	$\frac{\sqrt{6}v}{588\lambda^2-49v(\lambda+2k^2(r_1-r_3+2r_4))}$	0	$\frac{v}{49(-12\lambda^2+\lambda v+2k^2v(r_1-r_3+2r_4))}$	$\frac{i}{7\sqrt{2}k\left(\lambda+\frac{2k^2v(r_1-r_3+2r_4)}{-12\lambda+v}\right)}$	0	0
$0^{+}\tau^{\parallel}{}^{\dagger}$	$\frac{i\sqrt{3}(12\lambda-v)}{84k\lambda^2-7kv(\lambda+2k^2(r_1-r_3+2r_4))}$	0	$-\frac{i}{7\sqrt{2}k\left(\lambda+\frac{2k^2v(r_1-r_3+2r_4)}{-12\lambda+v}\right)}$	$\frac{-12\lambda+v+24k^2(r_1-r_3+2r_4)}{2k^2(-12\lambda^2+\lambda v+2k^2v(r_1-r_3+2r_4))}$	0	0
$0^{+}\tau^{\perp}{}^{\dagger}$	0 0		0	0 0		0
$0^{-}\sigma^{\parallel}{}^{\dagger}$	0 0		0	0	0	$\frac{1}{-2\lambda+k^2r_2+t_2}$

	$0^{+}\mathcal{B}$	$0^{+}\phi$	$0^{+}\mathcal{A}^{\parallel}$	$0^{+}f^{\parallel}$	$0^{+}f^{\perp}$	$0^{-}\mathcal{A}^{\parallel}$
$0^{+}\mathcal{B}^{\dagger}$	$-6\lambda+\frac{v}{2}+12k^2(r_1-r_3+2r_4)$	0	$\frac{12\lambda-v-24k^2(r_1-r_3+2r_4)}{2\sqrt{6}}$	$-\frac{i\,k(12\lambda-v)}{2\sqrt{3}}$	0	0
$0^{+}\phi^{\dagger}$	0 0		0 0			0
$0^{+}\mathcal{A}^{\parallel}{}^{\dagger}$	$\frac{12\lambda-v-24k^2(r_1-r_3+2r_4)}{2\sqrt{6}}$	0	$-\lambda+\frac{v}{12}+2k^2(r_1-r_3+2r_4)$	$\frac{i\,k(12\lambda-v)}{6\sqrt{2}}$	0	0
$0^{+}f^{\parallel}{}^{\dagger}$	$\frac{i\,k(12\lambda-v)}{2\sqrt{3}}$	0	$-\frac{i\,k(12\lambda-v)}{6\sqrt{2}}$	$\frac{k^2v}{6}$	0	0
$0^{+}f^{\perp}{}^{\dagger}$	0 0		0 0			0
$0^{-}\mathcal{A}^{\parallel}{}^{\dagger}$	0 0		0 0			$-2\lambda+k^2r_2+t_2$

Spin-parity form	Covariant form	Multiplicities
$0^{+}\tau^{\perp}==0$	$\partial_\beta\partial_\alpha\tau^{\alpha\beta}==0$	1
$2\,0^{+}\sigma^{\parallel}+0^{+}\mathcal{J}==0$	$\partial_\alpha\mathcal{J}^{\alpha}==2\,\partial_\beta\sigma^{\alpha}{}_{\alpha}{}^{\beta}$	1
$0^{+}\rho==0$	$\rho==0$	1
$2i\,k\,1^{-}\sigma^{\parallel\alpha}+1^{-}\tau^{\perp\alpha}-i\,k\,1^{-}\mathcal{J}^{\alpha}==0$	$\partial_\chi\partial^\chi\partial_\beta\tau^{\alpha\beta}+\partial_\chi\partial^\chi\partial^\alpha\partial_\beta\mathcal{J}^{\beta}+2\,\partial_\delta\partial^\delta\partial_\chi\partial_\beta\sigma^{\beta\alpha\chi}==$ $\partial_\chi\partial_\beta\partial^\alpha\tau^{\beta\chi}+\partial_\chi\partial^\chi\partial_\beta\partial^\beta\mathcal{J}^{\alpha}+2(\partial_\delta\partial^\delta\partial^\alpha\partial_\chi\sigma^{\beta}{}_{\beta}{}^{\chi}+\partial_\delta\partial^\delta\partial^\chi\partial_\chi\sigma^{\beta\alpha}{}_{\beta})$	3
$1^{-}\tau^{\parallel\alpha}==0$	$\partial_\chi\partial_\beta\partial^\alpha\tau^{\beta\chi}==\partial_\chi\partial^\chi\partial_\beta\tau^{\beta\alpha}$	3
$2\,1^{-}\sigma^{\perp\alpha}==2\,1^{-}\sigma^{\perp\alpha}+1^{-}\mathcal{J}^{\alpha}$	$\partial_\beta\partial^\alpha\mathcal{J}^{\beta}==\partial_\beta\partial^\beta\mathcal{J}^{\alpha}+2(\partial_\chi\partial^\alpha\sigma^{\beta}{}_{\beta}{}^{\chi}+\partial_\chi\partial^\chi\sigma^{\beta\alpha}{}_{\beta})$	3
$i\,k\,1^{+}\sigma^{\perp\alpha\beta}+1^{+}\tau^{\parallel\alpha\beta}==0$	$\partial_\chi\partial^\alpha\tau^{\beta\chi}+\partial_\chi\partial^\beta\tau^{\chi\alpha}+\partial_\chi\partial^\chi\tau^{\alpha\beta}+2\,\partial_\delta\partial_\chi\partial^\alpha\sigma^{\chi\beta\delta}+2\,\partial_\delta\partial_\chi\partial^\delta\sigma^{\chi\alpha\beta}==$ $\partial_\chi\partial^\alpha\tau^{\chi\beta}+\partial_\chi\partial^\beta\tau^{\alpha\chi}+\partial_\chi\partial^\chi\tau^{\beta\alpha}+2\,\partial_\delta\partial_\chi\partial^\beta\sigma^{\chi\alpha\delta}$	3
Total expected gauge generators:		15

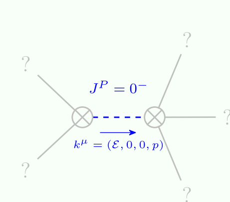
	$2^{+}\mathcal{A}^{\parallel}_{\alpha\beta}$	$2^{+}f^{\parallel}_{\alpha\beta}$	$2^{-}\mathcal{A}^{\parallel}_{\alpha\beta\chi}$
$2^{+}\mathcal{A}^{\parallel}{}^{\dagger\,\alpha\beta}$	$\lambda+k^2(2r_1-2r_3+r_4)+\frac{t_1}{2}$	$-\frac{i\,k(2\lambda+t_1)}{\sqrt{2}}$	0
$2^{+}f^{\parallel}{}^{\dagger\,\alpha\beta}$	$\frac{i\,k(2\lambda+t_1)}{\sqrt{2}}$	$k^2(\lambda+t_1)$	0
$2^{-}\mathcal{A}^{\parallel}{}^{\dagger\,\alpha\beta\chi}$	0 0		$\lambda+k^2r_1+\frac{t_1}{2}$

Massive and massless spectra



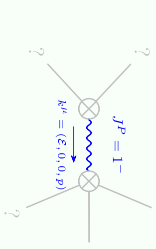
Massless particle

Pole residue:	$-\frac{1}{\lambda}>0$
Polarisations:	2



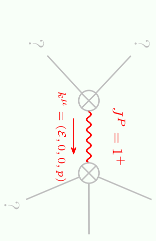
Massive particle

Pole residue:	$-\frac{1}{r_2}>0$
Square mass:	$\frac{2\lambda-t_2}{r_2}>0$
Spin:	0
Parity:	Odd



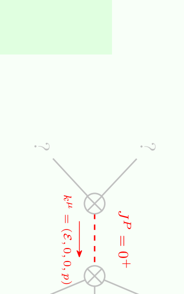
Massive particle

Pole residue:	$-((3(288\lambda^3+v^2(7r_1+7r_4+7r_5-t_1)-12vt_1^2+72(r_1+r_4+r_5)t_1^2+432\lambda^2(3r_1+3r_4+3r_5+t_1)-2\lambda(v^2-72t_1(2r_1+2r_4+2r_5+t_1)+12v(7r_1+7r_4+7r_5+t_1))))/((r_1+r_4+r_5)(12\lambda+v+12t_1)(360\lambda^2-30\lambda v+v(7r_1+7r_4+7r_5-15t_1)+84(r_1+r_4+r_5)t_1+12\lambda(7r_1+7r_4+7r_5+15t_1))))>0$
Square mass:	$\frac{3(12\lambda-v)(2\lambda+t_1)}{2(r_1+r_4+r_5)(12\lambda+v+12t_1)}>0$
Spin:	1
Parity:	Odd



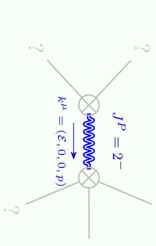
Massive particle

Pole residue:	$\frac{3(r_5t_1^2-t_1^2t_2+2r_5t_2^2-t_1t_2^2+4\lambda^2(6r_3+3r_5+t_1+t_2)+2\lambda(2r_5t_1+t_1^2+4r_3(t_1-2t_2)-4r_5t_2-t_2^2)+2r_3(t_1^2+2t_2^2))}{(2r_3+r_5)(t_1+t_2)(12\lambda^2+2r_5t_1+6\lambda(t_1-t_2)+2r_5t_2-3t_1t_2+4r_3(t_1+t_2))}>0$
Square mass:	$\frac{3(2\lambda+t_1)(2\lambda-t_2)}{2(2r_3+r_5)(t_1+t_2)}>0$
Spin:	1
Parity:	Even



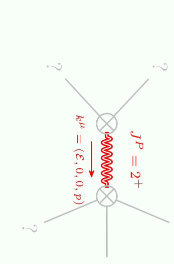
Massive particle

Pole residue:	$\frac{1}{14}\left(-\frac{7}{\lambda}+\frac{84}{v}+\frac{1}{r_1-r_3+2r_4}\right)>0$
Square mass:	$\frac{12\lambda^2-\lambda v}{2vr_1-2vr_3+4vr_4}>0$
Spin:	0
Parity:	Even



Massive particle

Pole residue:	$-\frac{1}{r_1}>0$
Square mass:	$-\frac{2\lambda+t_1}{2r_1}>0$
Spin:	2
Parity:	Odd



Massive particle

Pole residue:	$\frac{\lambda^2+(2r_1-2r_3+r_4)t_1+\lambda(4r_1-4r_3+2r_4+t_1)}{\lambda(2r_1-2r_3+r_4)(\lambda+t_1)}>0$
Square mass:	$\frac{\lambda(2\lambda+t_1)}{2(2r_1-2r_3+r_4)(\lambda+t_1)}>0$
Spin:	2
Parity:	Even

Unitarity conditions

(Timeout after 10 seconds)