PSALTer results panel

Wave operator and propagator

$1^+_{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$1^+_{\cdot}\sigma^{\perp}{}_{\alpha\beta}$	$1^+_{\cdot}\tau^{\parallel}{}_{\alpha\beta}$	$1^-_{\cdot}\sigma^{\parallel}{}_{\alpha}$	$1^-_{\cdot}\sigma^{\perp}{}_{\alpha}$	$1^-_{\cdot}\tau^{\parallel}{}_{\alpha}$	$1^-_{\cdot}\tau^{\perp}{}_{\alpha}$
$1^+_{\cdot}\sigma^{\parallel\,\alpha\beta}$	$\frac{8(2\,\beta_1-\beta_2)}{16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)+4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2-4\,\beta_1(\mathcal{M}_{\rm Pl}^2)+10\,\beta_2(\mathcal{M}_{\rm Pl}^2)-(\mathcal{M}_{\rm Pl}^2)^2}$	$-\frac{2\sqrt{2}(4\,\beta_1-6\,\beta_2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)(16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)+4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2-4\,\beta_1(\mathcal{M}_{\rm Pl}^2)+10\,\beta_2(\mathcal{M}_{\rm Pl}^2)-(\mathcal{M}_{\rm Pl}^2)^2)}$	$-\frac{2i\sqrt{2}\,k(4\,\beta_1-6\,\beta_2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)^2(16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)+4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2-4\,\beta_1(\mathcal{M}_{\rm Pl}^2)+10\,\beta_2(\mathcal{M}_{\rm Pl}^2)-(\mathcal{M}_{\rm Pl}^2)^2)}$	0	0	0	0
$1^+_{\cdot}\sigma^{\perp\,\alpha\beta}$	$\frac{2\sqrt{2}(4\,\beta_1-6\,\beta_2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)(-16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)-4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2+4\,\beta_1(\mathcal{M}_{\rm Pl}^2)-10\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)}$	$\frac{2(12\,\beta_1-10\,\beta_2+2(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)(16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)+4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2-4\,\beta_1(\mathcal{M}_{\rm Pl}^2)+10\,\beta_2(\mathcal{M}_{\rm Pl}^2)-(\mathcal{M}_{\rm Pl}^2)^2)}$	$\frac{2ik(12\,\beta_1-10\,\beta_2+2(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)^2(16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)+4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2-4\,\beta_1(\mathcal{M}_{\rm Pl}^2)+10\,\beta_2(\mathcal{M}_{\rm Pl}^2)-(\mathcal{M}_{\rm Pl}^2)^2)}$	0	0	0	0
$1^+_{\cdot}\tau^{\parallel\,\alpha\beta}$	$-\frac{2i\sqrt{2}\,k(4\,\beta_1-6\,\beta_2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)(-16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)-4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2+4\,\beta_1(\mathcal{M}_{\rm Pl}^2)-10\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)}$	$\frac{2ik(12\,\beta_1-10\,\beta_2+2(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)^2(-16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)-4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2+4\,\beta_1(\mathcal{M}_{\rm Pl}^2)-10\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)}$	$\frac{2k^2(12\,\beta_1-10\,\beta_2+2(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2))}{(1+k^2)^2(16(\beta_1-\beta_2)(2\,\beta_1+\beta_2)+4(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)k^2-4\,\beta_1(\mathcal{M}_{\rm Pl}^2)+10\,\beta_2(\mathcal{M}_{\rm Pl}^2)-(\mathcal{M}_{\rm Pl}^2)^2)}$	0	0	0	0
$1^-_{\cdot}\sigma^{\parallel}{}^{\alpha}$	0	0	0	$4(\frac{1}{12\,\beta_1+6\,\beta_2-3(\mathcal{M}_{\rm Pl}^2)}+\frac{1}{6\,\beta_1+3(\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+\frac{k^2\xi}{8}})$	$\frac{4\sqrt{2}(72\,\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\,\xi)}{3(1+2\,k^2)(4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2))(24(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^2\,\xi)}$	0	$\frac{8ik(72\,\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\,\xi)}{3(1+2\,k^2)(4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2))(24(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^2\,\xi)}$
$1^-_{\cdot}\sigma^{\perp}{}^{\alpha}$	0	0	0	$\frac{4\sqrt{2}(72\,\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\,\xi)}{3(1+2\,k^2)(4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2))(24(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^2\,\xi)}$	$\frac{8(\frac{1}{4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2)}+\frac{1}{8\,\beta_1+4(\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+\frac{k^2\xi}{6}})}{3(1+2\,k^2)^2}$	0	$\frac{8i\sqrt{2}\,k(18(4\,\beta_1+2\,\beta_2+4\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^2\,\xi)}{3(1+2\,k^2)^2(4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2))(24(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^2\,\xi)}$
$1^-_{\cdot}\tau^{\parallel}{}^{\alpha}$	0	0	0	0	0	0
$1^-_{\cdot}\tau^{\perp}{}^{\alpha}$	0	0	0	$-\frac{8ik(72\,\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\,\xi)}{3(1+2\,k^2)(4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2))(24(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^2\,\xi)}$	$-\frac{8i\sqrt{2}(18\,k(4\,\beta_1+2\,\beta_2+4\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^3\,\xi)}{3(1+2\,k^2)^2(4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2))(24(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+k^2\,\xi)}$	0	$\frac{16k^2(\frac{1}{4\,\beta_1+2\,\beta_2-(\mathcal{M}_{\rm Pl}^2)}+\frac{1}{8\,\beta_1+4(\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+\frac{k^2\xi}{6}})}{3(1+2\,k^2)^2}$

$1^+_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta}$	$1^+_{\cdot}\mathcal{A}^{\perp}{}_{\alpha\beta}$	$1^+_{\cdot}f^{\parallel}{}_{\alpha\beta}$	$1^-_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha}$	$1^-_{\cdot}\mathcal{A}^{\perp}{}_{\alpha}$	$1^-_{\cdot}f^{\parallel}{}_{\alpha}$	$1^-_{\cdot}f^{\perp}{}_{\alpha}$
$1^+_{\cdot}\mathcal{A}^{\parallel\,\alpha\beta}$	$\frac{1}{4}(12\,\beta_1-10\,\beta_2+2(\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2))$	$\frac{4\beta_1-6\beta_2+(\mathcal{M}_{\rm Pl}^2)}{2\sqrt{2}}$	$\frac{i\,k(4\beta_1-6\beta_2+(\mathcal{M}_{\rm Pl}^2))}{2\sqrt{2}}$	0	0		0
$1^+_{\cdot}\mathcal{A}^{\perp\,\alpha\beta}$	$\frac{4\beta_1-6\beta_2+(\mathcal{M}_{\rm Pl}^2)}{2\sqrt{2}}$	$2\beta_1-\beta_2$	$i(2\beta_1-\beta_2)k$	0	0		0
$1^+_{\cdot}f^{\parallel\,\alpha\beta}$	$-\frac{i\,k(4\beta_1-6\beta_2+(\mathcal{M}_{\rm Pl}^2))}{2\sqrt{2}}$	$-i(2\beta_1-\beta_2)k$	$(2\beta_1-\beta_2)k^2$	0	0	0	0
$1^-_{\cdot}\mathcal{A}^{\parallel\,\alpha}$	0	0	0	$\beta_1+\frac{\beta_2}{2}+\beta_3+\frac{(\mathcal{M}_{\rm Pl}^2)}{4}+\frac{k^2\xi}{72}$	$-\frac{72\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\xi}{72\sqrt{2}}$	0	$-\frac{1}{72}i\,k(72\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\xi)$
$1^-_{\cdot}\mathcal{A}^{\perp\,\alpha}$	0	0	0	$-\frac{72\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\xi}{72\sqrt{2}}$	$\beta_1+\frac{\beta_2}{2}+\beta_3+\frac{k^2\xi}{144}$	0	$\frac{i\,k(72(2\beta_1+\beta_2+\beta_3)+k^2\xi)}{72\sqrt{2}}$
$1^-_{\cdot}f^{\parallel\,\alpha}$	0	0	0	0	0		0
$1^-_{\cdot}f^{\perp\,\alpha}$	0	0	0	$\frac{1}{72}i\,k(72\beta_3+36(\mathcal{M}_{\rm Pl}^2)+k^2\xi)$	$-\frac{i\,k(72(2\beta_1+\beta_2+\beta_3)+k^2\xi)}{72\sqrt{2}}$	0	$(2\beta_1+\beta_2+\beta_3)k^2+\frac{k^4\xi}{72}$

$$S=\int\int\int\int(\mathcal{A}^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi}+f^{\alpha\beta}\,\tau_{(\Delta+\mathcal{K})\alpha\beta}-\frac{1}{2}(\mathcal{M}_{\rm Pl}^2)$$
$$(\mathcal{A}_{\kappa\theta}\,\mathcal{A}^{\iota\theta\kappa}+\mathcal{A}^{\iota\theta}{}_{,\theta}\,\mathcal{A}_{\theta}{}^{\kappa}+2\,f^{\iota\theta}\,\partial_\theta\mathcal{A}^{\kappa}{}_{,\kappa}-2\,\partial_\theta\mathcal{A}^{\iota\theta}{}_{,\theta}-2\,f^{\iota\theta}\,\partial_\kappa\mathcal{A}^{\kappa}{}_{,\theta}+2\,f_{,\theta}\,\partial_\kappa\mathcal{A}^{\theta\kappa}{}_{,\theta})+$$
$$\beta_3\,(-\mathcal{A}^{\iota\theta}{}_{,}\,\mathcal{A}_{\theta}{}^{\kappa}+2\,\mathcal{A}^{\iota}{}_{,\kappa}\,\partial_\theta f^{\iota\theta}-2\,\mathcal{A}_{\theta}{}^{\kappa}\,\partial_\theta f^{\iota}{}_{,}+\partial_\theta f^{\kappa}{}_{,}\,\partial_\theta f^{\iota}{}_{,}-2\,\partial_\theta f^{\iota}{}_{,}\,\partial_\kappa f^{\kappa}{}_{,}+$$
$$2\,\alpha_4\,(4\,\partial_\theta\mathcal{A}_{\alpha\theta\kappa}-2\,\partial_\theta\mathcal{A}_{\alpha\kappa\theta}+\partial_\kappa\mathcal{A}_{\alpha\theta\theta}-2\,\partial_\kappa\mathcal{A}_{\alpha\theta\iota})\partial^\kappa\mathcal{A}^{\alpha\iota\theta}-$$
$$\alpha_2\,(\partial_\theta\mathcal{A}^{\kappa}{}_{,\kappa}\,\partial^\theta\mathcal{A}^{\alpha\prime}{}_{,\alpha}+\partial_\alpha\mathcal{A}^{\alpha\iota\theta}\,\partial_\kappa\mathcal{A}^{\kappa}{}_{,\theta}-2\,\partial^\theta\mathcal{A}^{\alpha\prime}{}_{,\alpha}\,\partial_\kappa\mathcal{A}^{\kappa}{}_{,\theta}-$$
$$4\,\partial_\theta\mathcal{A}_{\alpha\theta\kappa}\,\partial^\kappa\mathcal{A}^{\alpha\iota\theta}+2\,\partial_\theta\mathcal{A}_{\alpha\kappa\theta}\,\partial^\kappa\mathcal{A}^{\alpha\iota\theta}+2\,\partial_\kappa\mathcal{A}_{\alpha\theta\iota}\,\partial^\kappa\mathcal{A}^{\alpha\iota\theta})+$$
$$2\,\beta_1\,(-\mathcal{A}_{\iota\kappa\theta}\,\mathcal{A}^{\iota\theta\kappa}+(2\,\mathcal{A}_{\theta\kappa\iota}-\partial_\iota f_{\kappa\theta}+\partial_\kappa f_{\iota\theta})\partial^\kappa f^{\iota\theta}+\mathcal{A}_{\iota\theta\kappa}\,(\mathcal{A}^{\iota\theta\kappa}+2\,\partial^\kappa f^{\iota\theta}))+$$
$$\beta_2\,(-2\,\mathcal{A}_{\theta\kappa\iota}-2\,\partial_\theta f_{\iota\kappa}+\partial_\iota f_{\theta\kappa})\partial^\kappa f^{\iota\theta}-\mathcal{A}_{\iota\theta\kappa}\,(\mathcal{A}^{\iota\theta\kappa}+2\,\partial^\kappa f^{\iota\theta})+$$
$$\mathcal{A}_{\iota\kappa\theta}\,(3\,\mathcal{A}^{\iota\theta\kappa}+4\,\partial^\kappa f^{\iota\theta})+4\,\alpha_1\partial_\theta\mathcal{A}^{\iota\theta}{}_{,}\,\partial_\lambda\mathcal{A}^{\kappa\lambda}{}_{,\kappa}+\frac{1}{72}\xi\,(-2\,\partial_\lambda\mathcal{A}^{\kappa}{}_{,\lambda}\,\partial^\kappa\partial_\theta f^{\iota\theta}+$$
$$2\,\partial_\kappa\mathcal{A}^{\iota}{}_{,\lambda}\,\partial^\kappa\partial_\theta f^{\iota\theta}+\partial_\theta\mathcal{A}^{\kappa}{}_{,\lambda}\,(\partial^\kappa\mathcal{A}^{\iota\theta}{}_{,}+\partial^\kappa\partial^\theta f^{\iota}{}_{,})-\partial_\kappa\mathcal{A}_{\theta}{}^{\lambda}\,(\partial^\kappa\mathcal{A}^{\iota\theta}{}_{,}+\partial^\kappa\partial^\theta f^{\iota}{}_{,})-$$
$$\partial^\kappa\partial_\theta f^{\iota\theta}\,\partial_\iota\partial^\lambda f^{\kappa}{}_{,}+\partial^\kappa\partial^\lambda f^{\iota}{}_{,}\,\partial_\iota\partial_\theta f^{\kappa}{}_{,}+\partial^\kappa\partial_\theta f^{\iota\theta}\,\partial_\iota\partial^\lambda f^{\kappa}{}_{,}-\partial^\kappa\partial^\theta f^{\iota}{}_{,}\,\partial_\iota\partial^\lambda f^{\kappa}{}_{,})-$$
$$\alpha_3\,(\partial_\kappa\mathcal{A}_{\lambda\zeta}\,\partial^\lambda\mathcal{A}^{\zeta\theta\kappa}{}_{,\theta}+(\partial_\theta\mathcal{A}^{\theta\kappa\lambda}-2\,\partial^\lambda\mathcal{A}^{\theta\kappa}{}_{,\theta})\,\partial_\zeta\mathcal{A}^{\zeta}{}_{\lambda\kappa}+4\,\alpha_6\,\partial_\lambda\mathcal{A}_{\lambda\zeta}{}^{\alpha}$$
$$\partial^\zeta\mathcal{A}^{\alpha\lambda})](t,x,y,z)\,d\,z\,d\,y\,d\,x\,d\,t$$

Spin-parity form	Covariant form	Multiplicities
$0^+_{\cdot}\tau^{\perp}==0$	$\partial_\beta\partial_\alpha\tau_{(\Delta+\mathcal{K})}{}^{\alpha\beta}==0$	1
$2\,i\,k\,1^-_{\cdot}\sigma^{\perp\,\alpha}+1^-_{\cdot}\tau^{\perp\,\alpha}==0$	$\partial_\chi\partial_\beta\partial^\alpha\tau_{(\Delta+\mathcal{K})}{}^{\beta\chi}==\partial_\chi\partial^\chi\partial_\beta\tau_{(\Delta+\mathcal{K})}{}^{\alpha\beta}+2\,\partial_\delta\partial^\delta\partial_\chi\partial_\beta\sigma^{\beta\alpha\chi}$	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
$i\,k\,1^+_{\cdot}\sigma^{\perp\,\alpha\beta}+1^+_{\cdot}\tau^{\parallel\,\alpha\beta}==0$	$\partial_\chi\partial^\alpha\tau_{(\Delta+\mathcal{K})}{}^{\beta\chi}+\partial_\chi\partial^\beta\tau_{(\Delta+\mathcal{K})}{}^{\chi\alpha}+$ $\partial_\chi\partial^\chi\tau_{(\Delta+\mathcal{K})}{}^{\alpha\beta}+2\,\partial_\delta\partial_\chi\partial^\alpha\sigma^{\chi\beta\delta}+2\,\partial_\delta\partial^\delta\partial_\chi\sigma^{\chi\alpha\beta}==$ $\partial_\chi\partial^\alpha\tau_{(\Delta+\mathcal{K})}{}^{\chi\beta}+\partial_\chi\partial^\beta\tau_{(\Delta+\mathcal{K})}{}^{\alpha\chi}+\partial_\chi\partial^\chi\tau_{(\Delta+\mathcal{K})}{}^{\beta\alpha}+2\,\partial_\delta\partial_\chi\partial^\beta\sigma^{\chi\alpha\delta}$	3
Total expected gauge generators:		10

$0^+_{\cdot}\sigma^{\parallel}$	$0^+_{\cdot}\tau^{\parallel}$	$0^+_{\cdot}\tau^{\perp}$	$0^-_{\cdot}\sigma^{\parallel}$
$0^+_{\cdot}\sigma^{\parallel\,\alpha\beta}$	$\frac{1}{2(3\,\alpha_1-\alpha_3-\alpha_4+\alpha_6)k^2+\frac{1}{2}(\mathcal{M}_{\rm Pl}^2)(-1-\frac{(\mathcal{M}_{\rm Pl}^2)}{2\beta_1+2\beta_2+3\beta_3})}$	0	0
$0^+_{\cdot}\tau^{\parallel\,\alpha\beta}$	$\frac{i\sqrt{2}(2\,\beta_1+\beta_2+3\beta_3+(\mathcal{M}_{\rm Pl}^2))}{k((\mathcal{M}_{\rm Pl}^2)^2+(2\beta_1+\beta_2+3\beta_3)(-4(3\,\alpha_1-\alpha_3-\alpha_4+\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2)))}$	0	0
$0^+_{\cdot}\tau^{\perp\,\alpha\beta}$	0	0	0
$0^-_{\cdot}\sigma^{\parallel\,\alpha\beta}$	0	0	$\frac{2}{8\beta_1-8\beta_2+4(\alpha_2+3\,\alpha_4)k^2+(\mathcal{M}_{\rm Pl}^2)}$

$2^+_{\cdot}\mathcal{A}^{\parallel}{}_{\alpha\beta\chi}$	$2^+_{\cdot}f^{\parallel}{}_{\alpha\beta\chi}$	$2^+_{\cdot}\sigma^{\parallel\,\alpha\beta}$	$2^+_{\cdot}\tau^{\parallel\,\alpha\beta}$	$2^+_{\cdot}\tau^{\perp\,\alpha\beta}$	$2^-_{\cdot}\sigma^{\parallel}{}_{\alpha\beta\chi}$
$2^+_{\cdot}\mathcal{A}^{\parallel\,\alpha\beta\chi}$	$\frac{1}{4}(4\,\beta_1+2\,\beta_2+2(-3\,\alpha_2+\alpha_3-4\,\alpha_4+4\,\alpha_6)k^2-(\mathcal{M}_{\rm Pl}^2))$	$\frac{i\,k(4\beta_1+2\beta_2-(\mathcal{M}_{\rm Pl}^2))}{2\sqrt{2}}$	$\frac{1}{2}(2\,\beta_1+\beta_2+3\,\beta_3+4(3\,\alpha_1+\alpha_3-\alpha_4+\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2))$	$-\frac{i\,k(2\beta_1+\beta_2+3\beta_3+(\mathcal{M}_{\rm Pl}^2))}{\sqrt{2}}$	0
$2^+_{\cdot}f^{\parallel\,\alpha\beta\chi}$	$(2\,\beta_1+\beta_2+3\,\beta_3)k^2$	0	0	0	0
$2^+_{\cdot}\sigma^{\parallel\,\alpha\beta}$	0	$\frac{8}{4(-3\,\alpha_2+\alpha_3-4\,\alpha_4+4\,\alpha_6)k^2+(\mathcal{M}_{\rm Pl}^2)(2-\frac{(\mathcal{M}_{\rm Pl}^2)}{2\beta_1+\beta_2})}$	$\frac{2i\sqrt{2}(4\,\beta_1+2\beta_2-(\mathcal{M}_{\rm Pl}^2))}{k(2(2\,\beta_1+\beta_2)(2\,\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2-(\mathcal{M}_{\rm Pl}^2))+(\mathcal{M}_{\rm Pl}^2)^2)}$	0	0
$2^+_{\cdot}\tau^{\parallel\,\alpha\beta}$	0	$\frac{2i\sqrt{2}(4\,\beta_1+2\beta_2-(\mathcal{M}_{\rm Pl}^2))}{k(4(3\,\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2-(\mathcal{M}_{\rm Pl}^2)(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)}$	$\frac{2(4\,\beta_1+2\beta_2+2(-3\,\alpha_2+\alpha_3-4\,\alpha_4+4\,\alpha_6)k^2-(\mathcal{M}_{\rm Pl}^2))(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)}{k^2(4(3\,\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2-(\mathcal{M}_{\rm Pl}^2))+(\mathcal{M}_{\rm Pl}^2)^2)}$	0	0
$2^+_{\cdot}\tau^{\perp\,\alpha\beta}$	0	0	$\frac{2(4\,\beta_1+2\beta_2+2(-3\,\alpha_2+\alpha_3-4\,\alpha_4+4\,\alpha_6)k^2-(\mathcal{M}_{\rm Pl}^2))(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)}{k(4(3\,\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)k^2-(\mathcal{M}_{\rm Pl}^2))+(\mathcal{M}_{\rm Pl}^2)^2)}$	0	0
$2^-_{\cdot}\sigma^{\parallel}{}_{\alpha\beta\chi}$	0	0	0	0	$\frac{4}{-4\beta_1-2\beta_2+4\alpha_2k^2+(\mathcal{M}_{\rm Pl}^2)}$

Massive and massless spectra

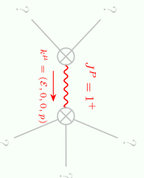
Pole residue: $\frac{(\alpha_2(48\,\beta_1^2-80\,\beta_1\beta_2+44\,\beta_2^2+8\,\beta_1(\mathcal{M}_{\rm Pl}^2)-12\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)-\alpha_3(48\,\beta_1^2-80\,\beta_1\beta_2+44\,\beta_2^2+8\,\beta_1(\mathcal{M}_{\rm Pl}^2)-12\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)+4\,\alpha_4(48\,\beta_1^2-80\,\beta_1\beta_2+44\,\beta_2^2+8\,\beta_1(\mathcal{M}_{\rm Pl}^2)-12\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)-4\,\alpha_6(48\,\beta_1^2-80\,\beta_1\beta_2+44\,\beta_2^2+8\,\beta_1(\mathcal{M}_{\rm Pl}^2)-12\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2)-2(\beta_1-\beta_2)(32\,\beta_1^2-16\,\beta_1\beta_2+10\,\beta_2(\mathcal{M}_{\rm Pl}^2)-(\mathcal{M}_{\rm Pl}^2)^2-4\,\beta_1(4\beta_2+(\mathcal{M}_{\rm Pl}^2)))+((\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1-\beta_2)(8\,\alpha_2\beta_1^2-8\,\alpha_3\beta_1^2+32\,\alpha_4\beta_1^2-32\,\alpha_6\beta_1^2-32\,\alpha_2\beta_2^2+4\,\alpha_3\beta_2^2+4\,\alpha_2\beta_3^2-16\,\alpha_4\beta_2^2+16\,\alpha_6\beta_2^2+16\,\beta_1^2\beta_2+4\,\beta_1(\mathcal{M}_{\rm Pl}^2)-10\,\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2))>0$

Square mass: $\frac{-32\beta_1^2+16\beta_2^2-10\beta_2(\mathcal{M}_{\rm Pl}^2)+(\mathcal{M}_{\rm Pl}^2)^2+4\beta_1(4\beta_2+(\mathcal{M}_{\rm Pl}^2))}{4(\alpha_2-\alpha_3+4\alpha_4-4\alpha_6)(2\beta_1-\beta_2)}>0$

Spin: 1

Parity: Even

Massive particle



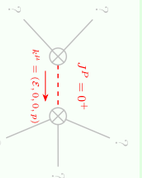
Pole residue: $\frac{(-4\,\alpha_4\beta_1+4\,\alpha_6\beta_1-2\,\alpha_4\beta_2+2\,\alpha_6\beta_2-6\,\alpha_4\beta_3+6\,\alpha_6\beta_3-2\,\alpha_4(\mathcal{M}_{\rm Pl}^2)+2\,\alpha_6(\mathcal{M}_{\rm Pl}^2)+2\,\beta_1(\mathcal{M}_{\rm Pl}^2)+2\,\beta_2(\mathcal{M}_{\rm Pl}^2)+3\,\beta_3(\mathcal{M}_{\rm Pl}^2)+6\,\alpha_4(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+2\,\alpha_6(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))+(2(3\,\alpha_1+\alpha_3-\alpha_4+\alpha_6)(2\,\beta_1+\beta_2+3\,\beta_3)(\mathcal{M}_{\rm Pl}^2)>0$

Square mass: $\frac{(\mathcal{M}_{\rm Pl}^2)(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))}{4(3\,\alpha_1+\alpha_3-\alpha_4+\alpha_6)(2\,\beta_1+\beta_2+3\,\beta_3)}>0$

Spin: 0

Parity: Even

Massive particle



Pole residue: $\frac{-3\,\alpha_2(4\beta_1+2\beta_2-(\mathcal{M}_{\rm Pl}^2))+\alpha_3(4\beta_1+2\beta_2-(\mathcal{M}_{\rm Pl}^2))+2(8\,\alpha_4\beta_1-8\,\alpha_6\beta_1+4\,\alpha_2\beta_2-4\,\alpha_3\beta_2+2\,\alpha_6\beta_2+2\,\alpha_4\beta_3-2\,\alpha_6\beta_3+2\,\alpha_4(\mathcal{M}_{\rm Pl}^2)-2\,\alpha_6(\mathcal{M}_{\rm Pl}^2)-2\,\beta_1(\mathcal{M}_{\rm Pl}^2)-\beta_2(\mathcal{M}_{\rm Pl}^2))}{(3\,\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1+\beta_2)(\mathcal{M}_{\rm Pl}^2)}$

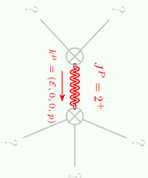
0

Square mass: $\frac{(4\beta_1+2\beta_2-(\mathcal{M}_{\rm Pl}^2))(\mathcal{M}_{\rm Pl}^2)}{4(3\,\alpha_2-\alpha_3+4\,\alpha_4-4\,\alpha_6)(2\,\beta_1+\beta_2)}>0$

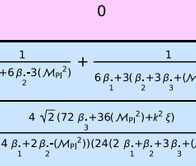
Spin: 2

Parity: Even

Massive particle

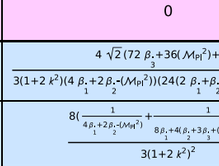


Massive particle



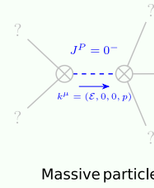
Pole residue:	$-\frac{48(64\,\beta_1+32\,\beta_2+96\,\beta_3+32(\mathcal{M}_{\rm Pl}^2)-\xi)}{(96\,\beta_1+48\,\beta_2+144\,\beta_3+48(\mathcal{M}_{\rm Pl}^2)-\xi)\,\xi}>0$
Square mass:	$-\frac{24(2\,\beta_1+\beta_2+3\,\beta_3+(\mathcal{M}_{\rm Pl}^2))}{\xi}>0$
Spin:	1
Parity:	Odd

Massless particle



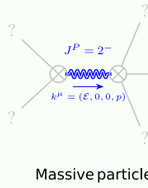
Pole residue:	$\frac{1}{(\mathcal{M}_{\rm Pl}^2)}>0$
Polarisations:	2

Massive particle



Pole residue:	$-\frac{1}{2(\alpha_2+3\,\alpha_4)}>0$
Square mass:	$-\frac{8\beta_1-8\beta_2+(\mathcal{M}_{\rm Pl}^2)}{4(\alpha_2+3\,\alpha_4)}>0$
Spin:	0
Parity:	Odd

Massive particle



Pole residue:	$\frac{1}{\alpha_2}>0$
Square mass:	$\frac{4\beta_1+2\beta_2-(\mathcal{M}_{\rm Pl}^2)}{4\alpha_2}>0$
Spin:	2
Parity:	Odd

Unitarity conditions

(Demonstrably impossible)