PSALTer results panel

$$\mathcal{S} == \int\int\int\int\left(\frac{1}{4}\left(-2\,a_{0}\,\mathcal{A}_{\alpha\chi\beta}\,\mathcal{A}^{\alpha\beta\chi}+2\,a_{0}\,\mathcal{A}^{\alpha}{}_{\alpha}{}^{\beta}\,\mathcal{A}^{\chi}{}_{\beta\chi}+4\,\mathcal{A}^{\alpha\beta\chi}\,\mathcal{W}_{\alpha\beta\chi}+4\,\mathcal{T}^{\alpha\beta}\,h_{\alpha\beta}+2\,a_{0}\,h^{\alpha\beta}\,\partial_{\beta}\mathcal{A}_{\alpha}{}^{\chi}{}_{\chi}-2\,a_{0}\,h^{\alpha\beta}\,\partial_{\chi}\mathcal{A}_{\alpha}{}^{\chi}{}_{\beta}-a_{0}\,h^{\alpha}{}_{\alpha}\,\partial_{\chi}\mathcal{A}^{\beta}{}_{\beta}{}^{\chi}+a_{0}\,h^{\alpha}{}_{\alpha}\,\partial_{\chi}\mathcal{A}^{\beta\chi}{}_{\beta}+h_{2}\,\partial_{\beta}\mathcal{A}_{\chi}{}^{\delta}{}_{\delta}\,\partial^{\chi}\mathcal{A}^{\alpha}{}_{\alpha}{}^{\beta}-h_{2}\,\partial_{\chi}\mathcal{A}_{\beta}{}^{\delta}{}_{\delta}\,\partial^{\chi}\mathcal{A}^{\alpha}{}_{\alpha}{}^{\beta}\right)\right)[t,\,x,\,y,\,z]\,dz\,dy\,dx\,dt$$

Wave operator

	${}^{0^+}_{\cdot}h^{\perp}$	${}^{0^+}_{\cdot}h^{\parallel}$	${}^{0^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{t}}$	${}^{0^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}$	${}^{0^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{h}}$
${}^{0^+}_{\cdot}h^{\perp}\,\dagger$	0	0	0	$\frac{i\,a_{0}\,k}{4}$	$\frac{i\,a_{0}\,k}{8\sqrt{2}}$
${}^{0^+}_{\cdot}h^{\parallel}\,\dagger$	0	0	0	$-\frac{i\,a_{0}\,k}{4\sqrt{3}}$	$\frac{5\,i\,a_{0}\,k}{8\sqrt{6}}$
${}^{0^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{t}}\,\dagger$	0	0	0	$\frac{a_{0}}{2}$	$\frac{a_{0}}{4\sqrt{2}}$
${}^{0^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}\,\dagger$	$-\frac{1}{4}\,i\,a_{0}\,k$	$\frac{i\,a_{0}\,k}{4\sqrt{3}}$	$\frac{a_{0}}{2}$	0	$\frac{a_{0}}{4\sqrt{2}}$
${}^{0^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{h}}\,\dagger$	$-\frac{i\,a_{0}\,k}{8\sqrt{2}}$	$-\frac{5\,i\,a_{0}\,k}{8\sqrt{6}}$	$\frac{a_{0}}{4\sqrt{2}}$	$\frac{a_{0}}{4\sqrt{2}}$	$-\frac{a_{0}}{4}$

	${}^{1^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp}{}_{\alpha\beta}$	${}^{1^-}_{\cdot}h^{\perp}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{t}}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel\mathrm{t}}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{h}}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel\mathrm{h}}{}_{\alpha}$
${}^{1^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp}\,\dagger^{\alpha\beta}$	$\frac{a_{0}}{4}$	0	0	0	0	0
${}^{1^-}_{\cdot}h^{\perp}\,\dagger^{\alpha}$	0	0	$-\frac{i\,a_{0}\,k}{4\sqrt{6}}$	$\frac{1}{4}\,i\,\sqrt{\frac{5}{6}}\,a_{0}\,k$	$\frac{i\,a_{0}\,k}{8\sqrt{3}}$	$-\frac{i\,a_{0}\,k}{4\sqrt{6}}$
${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{t}}\,\dagger^{\alpha}$	0	$\frac{i\,a_{0}\,k}{4\sqrt{6}}$	$\frac{1}{12}\left(-4\,a_{0}-k^{2}\,h_{2}\right)$	$\frac{1}{12}\sqrt{5}\left(2\,a_{0}-k^{2}\,h_{2}\right)$	$\frac{a_{0}+k^{2}\,h_{2}}{12\sqrt{2}}$	$\frac{1}{12}\left(a_{0}+k^{2}\,h_{2}\right)$
${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel\mathrm{t}}\,\dagger^{\alpha}$	0	$-\frac{1}{4}\,i\,\sqrt{\frac{5}{6}}\,a_{0}\,k$	$\frac{1}{12}\sqrt{5}\left(2\,a_{0}-k^{2}\,h_{2}\right)$	$\frac{1}{12}\left(4\,a_{0}-5\,k^{2}\,h_{2}\right)$	$\frac{1}{12}\sqrt{\frac{5}{2}}\left(a_{0}+k^{2}\,h_{2}\right)$	$\frac{1}{12}\sqrt{5}\left(a_{0}+k^{2}\,h_{2}\right)$
${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp\mathrm{h}}\,\dagger^{\alpha}$	0	$-\frac{i\,a_{0}\,k}{8\sqrt{3}}$	$\frac{a_{0}+k^{2}\,h_{2}}{12\sqrt{2}}$	$\frac{1}{12}\sqrt{\frac{5}{2}}\left(a_{0}+k^{2}\,h_{2}\right)$	$\frac{1}{24}\left(2\,a_{0}-k^{2}\,h_{2}\right)$	$-\frac{4\,a_{0}+k^{2}\,h_{2}}{12\sqrt{2}}$
${}^{1^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel\mathrm{h}}\,\dagger^{\alpha}$	0	$\frac{i\,a_{0}\,k}{4\sqrt{6}}$	$\frac{1}{12}\left(a_{0}+k^{2}\,h_{2}\right)$	$\frac{1}{12}\sqrt{5}\left(a_{0}+k^{2}\,h_{2}\right)$	$-\frac{4\,a_{0}+k^{2}\,h_{2}}{12\sqrt{2}}$	$\frac{1}{12}\left(-a_{0}-k^{2}\,h_{2}\right)$

	${}^{2^+}_{\cdot}h^{\parallel}{}_{\alpha\beta}$	${}^{2^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}{}_{\alpha\beta}$	${}^{2^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp}{}_{\alpha\beta}$	${}^{2^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}{}_{\alpha\beta\chi}$
${}^{2^+}_{\cdot}h^{\parallel}\,\dagger^{\alpha\beta}$	0	$-\frac{i\,a_{0}\,k}{4\sqrt{3}}$	$-\frac{i\,a_{0}\,k}{2\sqrt{6}}$	0
${}^{2^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}\,\dagger^{\alpha\beta}$	$\frac{i\,a_{0}\,k}{4\sqrt{3}}$	$-\frac{a_{0}}{2}$	0	0
${}^{2^+}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\perp}\,\dagger^{\alpha\beta}$	$\frac{i\,a_{0}\,k}{2\sqrt{6}}$	0	$\frac{a_{0}}{4}$	0
${}^{2^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}\,\dagger^{\alpha\beta\chi}$	0	0	0	$\frac{a_{0}}{4}$

	${}^{3^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}{}_{\alpha\beta\chi}$
${}^{3^-}_{\cdot}\mathcal{A}_{\mathrm{s}}{}^{\parallel}\,\dagger^{\alpha\beta\chi}$	$-\frac{a_{0}}{2}$

Saturated propagator

	${}^{0^+}_{\cdot}\mathcal{T}^{\perp}$	${}^{0^+}_{\cdot}\mathcal{T}^{\parallel}$	${}^{0^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{t}}$	${}^{0^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}$	${}^{0^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{h}}$
${}^{0^+}_{\cdot}\mathcal{T}^{\perp}\,\dagger$	$-\frac{4\,k^{2}}{3\,a_{0}\,(4+k^{2})^{2}}$	0	$-\frac{8\,i\,k}{3\,a_{0}\,(4+k^{2})^{2}}$	$\frac{10\,i\,k}{12\,a_{0}+3\,a_{0}\,k^{2}}$	$\frac{4\,i\,\sqrt{2}\,k}{12\,a_{0}+3\,a_{0}\,k^{2}}$
${}^{0^+}_{\cdot}\mathcal{T}^{\parallel}\,\dagger$	0	$\frac{4}{a_{0}\,k^{2}}$	0	$-\frac{2\,i}{\sqrt{3}\,a_{0}\,k}$	$\frac{4\,i\,\sqrt{\frac{2}{3}}}{a_{0}\,k}$
${}^{0^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{t}}\,\dagger$	$\frac{8\,i\,k}{3\,a_{0}\,(4+k^{2})^{2}}$	0	$-\frac{16}{3\,a_{0}\,(4+k^{2})^{2}}$	$\frac{20}{12\,a_{0}+3\,a_{0}\,k^{2}}$	$\frac{8\sqrt{2}}{12\,a_{0}+3\,a_{0}\,k^{2}}$
${}^{0^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}\,\dagger$	$-\frac{10\,i\,k}{12\,a_{0}+3\,a_{0}\,k^{2}}$	$\frac{2\,i}{\sqrt{3}\,a_{0}\,k}$	$\frac{20}{12\,a_{0}+3\,a_{0}\,k^{2}}$	0	0
${}^{0^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{h}}\,\dagger$	$-\frac{4\,i\,\sqrt{2}\,k}{12\,a_{0}+3\,a_{0}\,k^{2}}$	$-\frac{4\,i\,\sqrt{\frac{2}{3}}}{a_{0}\,k}$	$\frac{8\sqrt{2}}{12\,a_{0}+3\,a_{0}\,k^{2}}$	0	0

	${}^{1^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp}{}_{\alpha\beta}$	${}^{1^-}_{\cdot}\mathcal{T}^{\perp}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{t}}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel\mathrm{t}}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{h}}{}_{\alpha}$	${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel\mathrm{h}}{}_{\alpha}$
${}^{1^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp}\,\dagger^{\alpha\beta}$	$\frac{4}{a_{0}}$	0	0	0	0	0
${}^{1^-}_{\cdot}\mathcal{T}^{\perp}\,\dagger^{\alpha}$	0	$\frac{6\,a_{0}\,k^{2}+8\,k^{4}\,h_{2}}{a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$-\frac{2\,i\,\sqrt{\frac{2}{3}}\,k\left(3\,a_{0}\,(1+k^{2})+2\,k^{4}\,h_{2}\right)}{a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{i\,\sqrt{\frac{10}{3}}\,k\left(3\,a_{0}+2\,k^{2}\,h_{2}\right)}{a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{2\,i\,k\left(3\,a_{0}\,(4+k^{2})+2\,k^{2}\,(6+k^{2})\,h_{2}\right)}{\sqrt{3}\,a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{4\,i\,\sqrt{\frac{2}{3}}\,k\left(-3\,a_{0}+k^{2}\,h_{2}\right)}{a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$
${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{t}}\,\dagger^{\alpha}$	0	$\frac{2\,i\,\sqrt{\frac{2}{3}}\,k\left(3\,a_{0}\,(1+k^{2})+2\,k^{4}\,h_{2}\right)}{a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$-\frac{4\left(a_{0}\left(13+10\,k^{2}+k^{4}\right)+4\,k^{2}\,(1+k^{2})\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{2\sqrt{5}\left(a_{0}\,(5+k^{2})+2\,k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{2\sqrt{2}\left(a_{0}\,(4+k^{2}+k^{4})-2\,k^{2}\,(-2+k^{2})\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{8\left(a_{0}+2\,a_{0}\,k^{2}+k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$
${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel\mathrm{t}}\,\dagger^{\alpha}$	0	$-\frac{i\,\sqrt{\frac{10}{3}}\,k\left(3\,a_{0}+2\,k^{2}\,h_{2}\right)}{a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{2\sqrt{5}\left(a_{0}\,(5+k^{2})+2\,k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{4}{3\,a_{0}}-\frac{5}{9\,a_{0}+3\,k^{2}\,h_{2}}$	$\frac{\sqrt{10}\left(-a_{0}\,(-4+k^{2})+4\,k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{4\sqrt{5}\left(a_{0}+k^{2}\,h_{2}\right)}{3\,a_{0}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$
${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{h}}\,\dagger^{\alpha}$	0	$-\frac{2\,i\,k\left(3\,a_{0}\,(4+k^{2})+2\,k^{2}\,(6+k^{2})\,h_{2}\right)}{\sqrt{3}\,a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{2\sqrt{2}\left(a_{0}\,(4+k^{2}+k^{4})-2\,k^{2}\,(-2+k^{2})\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{\sqrt{10}\left(-a_{0}\,(-4+k^{2})+4\,k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{-2\,a_{0}\left(-32-8\,k^{2}+k^{4}\right)+16\,k^{2}\,(4+k^{2})\,h_{2}}{3\,a_{0}\,(2+k^{2})^{2}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$-\frac{8\sqrt{2}\left(a_{0}\,(5+k^{2})-k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$
${}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel\mathrm{h}}\,\dagger^{\alpha}$	0	$\frac{4\,i\,\sqrt{\frac{2}{3}}\,k\left(3\,a_{0}-k^{2}\,h_{2}\right)}{a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{8\left(a_{0}+2\,a_{0}\,k^{2}+k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{4\sqrt{5}\left(a_{0}+k^{2}\,h_{2}\right)}{3\,a_{0}\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$-\frac{8\sqrt{2}\left(a_{0}\,(5+k^{2})-k^{2}\,h_{2}\right)}{3\,a_{0}\,(2+k^{2})\left(3\,a_{0}+k^{2}\,h_{2}\right)}$	$\frac{4}{3}\left(\frac{5}{a_{0}}-\frac{16}{3\,a_{0}+k^{2}\,h_{2}}\right)$

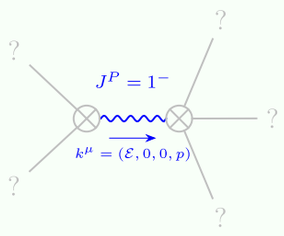
	${}^{2^+}_{\cdot}\mathcal{T}^{\parallel}{}_{\alpha\beta}$	${}^{2^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}{}_{\alpha\beta}$	${}^{2^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp}{}_{\alpha\beta}$	${}^{2^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}{}_{\alpha\beta\chi}$
${}^{2^+}_{\cdot}\mathcal{T}^{\parallel}\,\dagger^{\alpha\beta}$	$-\frac{8}{a_{0}\,k^{2}}$	$\frac{4\,i}{\sqrt{3}\,a_{0}\,k}$	$-\frac{8\,i\,\sqrt{\frac{2}{3}}}{a_{0}\,k}$	0
${}^{2^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}\,\dagger^{\alpha\beta}$	$-\frac{4\,i}{\sqrt{3}\,a_{0}\,k}$	$-\frac{8}{3\,a_{0}}$	$\frac{4\sqrt{2}}{3\,a_{0}}$	0
${}^{2^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp}\,\dagger^{\alpha\beta}$	$\frac{8\,i\,\sqrt{\frac{2}{3}}}{a_{0}\,k}$	$\frac{4\sqrt{2}}{3\,a_{0}}$	$-\frac{4}{3\,a_{0}}$	0
${}^{2^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}\,\dagger^{\alpha\beta\chi}$	0	0	0	$\frac{4}{a_{0}}$

	${}^{3^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}{}_{\alpha\beta\chi}$
${}^{3^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\parallel}\,\dagger^{\alpha\beta\chi}$	$-\frac{2}{a_{0}}$

Source constraints

Spin-parity form	Covariant form	Multiplicities
$k\,{}^{0^+}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{t}}+2\,i\,{}^{0^+}_{\cdot}\mathcal{T}^{\perp}==0$	$2\,\partial_{\beta}\partial_{\alpha}\mathcal{T}^{\alpha\beta}==\partial_{\chi}\partial_{\beta}\partial_{\alpha}\mathcal{W}^{\alpha\beta\chi}$	1
$2\,k\,{}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{h}}{}^{\alpha}+k\,{}^{1^-}_{\cdot}\mathcal{W}_{\mathrm{s}}{}^{\perp\mathrm{t}}{}^{\alpha}+6\,i\,{}^{1^-}_{\cdot}\mathcal{T}^{\perp}{}^{\alpha}==0$	$2\,\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{T}^{\beta\chi}+\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\mathcal{W}^{\beta\alpha\chi}==2\,\partial_{\chi}\partial^{\chi}\partial_{\beta}\mathcal{T}^{\alpha\beta}+\partial_{\delta}\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{W}^{\beta\chi\delta}$	3
Total expected gauge generators:		4

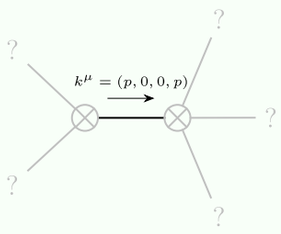
Massive spectrum



Massive particle

Pole residue:	$\frac{75\,a_{0}-68\,h_{2}}{3\,a_{0}\,h_{2}-2\,h_{2}^{2}} > 0$
Square mass:	$-\frac{3\,a_{0}}{h_{2}} > 0$
Spin:	1
Parity:	Odd

Massless spectrum



Massless particle

Pole residue:	$-\frac{p^{2}}{a_{0}} > 0$
Polarisations:	2

Unitarity conditions

$a_{0} < 0\;\&\&\;h_{2} > 0$