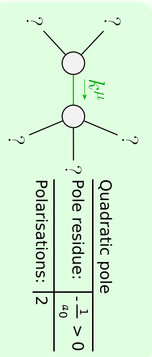

Polarisations:	Pole residue:	Quadratic pole
2	$-\frac{1}{a_0} > 0$	

Unitarity conditions

$a_0 < 0$

(No massive particles)

	$\Delta_{1^+}^{\#1}{}_{\alpha\beta}$	$\Delta_{1^+}^{\#2}{}_{\alpha\beta}$	$\Delta_{1^+}^{\#3}{}_{\alpha\beta}$	$\Delta_{1^-}^{\#1}{}_{\alpha}$	$\Delta_{1^-}^{\#2}{}_{\alpha}$	$\Delta_{1^-}^{\#3}{}_{\alpha}$	$\Delta_{1^-}^{\#4}{}_{\alpha}$	$\Delta_{1^-}^{\#5}{}_{\alpha}$	$\Delta_{1^-}^{\#6}{}_{\alpha}$	$\mathcal{T}_{1^-}^{\#1}{}_{\alpha}$
$\Delta_{1^+}^{\#1}\dagger^{\alpha\beta}$	0	$-\frac{2\sqrt{2}}{a_0}$	0	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#2}\dagger^{\alpha\beta}$	$-\frac{2\sqrt{2}}{a_0}$	$\frac{2}{a_0}$	0	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#3}\dagger^{\alpha\beta}$	0	0	$\frac{4}{a_0}$	0	0	0	0	0	0	0
$\Delta_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	0	$\frac{2\sqrt{2}}{a_0}$	0	0	0	0	0
$\Delta_{1^-}^{\#2}\dagger^{\alpha}$	0	0	0	$\frac{2\sqrt{2}}{a_0}$	$\frac{2}{a_0}$	0	0	0	0	0
$\Delta_{1^-}^{\#3}\dagger^{\alpha}$	0	0	0	0	0	$-\frac{19}{12\,a_0}$	$\frac{5\sqrt{5}}{12\,a_0}$	$-\frac{1}{6\sqrt{2}\,a_0}$	$-\frac{1}{6\,a_0}$	0
$\Delta_{1^-}^{\#4}\dagger^{\alpha}$	0	0	0	0	0	$\frac{5\sqrt{5}}{12\,a_0}$	$\frac{1}{12\,a_0}$	$-\frac{\sqrt{\frac{5}{2}}}{6\,a_0}$	$-\frac{\sqrt{5}}{6\,a_0}$	0
$\Delta_{1^-}^{\#5}\dagger^{\alpha}$	0	0	0	0	0	$-\frac{1}{6\sqrt{2}\,a_0}$	$-\frac{\sqrt{\frac{5}{2}}}{6\,a_0}$	$\frac{17}{6\,a_0}$	$-\frac{7}{3\sqrt{2}\,a_0}$	0
$\Delta_{1^-}^{\#6}\dagger^{\alpha}$	0	0	0	0	0	$-\frac{1}{6\,a_0}$	$-\frac{\sqrt{5}}{6\,a_0}$	$-\frac{7}{3\sqrt{2}\,a_0}$	$\frac{5}{3\,a_0}$	0
$\mathcal{T}_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	0	0	0	0	0	0	0

	$\Gamma_{1^+}^{\#1}{}_{\alpha\beta}$	$\Gamma_{1^+}^{\#2}{}_{\alpha\beta}$	$\Gamma_{1^+}^{\#3}{}_{\alpha\beta}$	$\Gamma_{1^-}^{\#1}{}_{\alpha}$	$\Gamma_{1^-}^{\#2}{}_{\alpha}$	$\Gamma_{1^-}^{\#3}{}_{\alpha}$	$\Gamma_{1^-}^{\#4}{}_{\alpha}$	$\Gamma_{1^-}^{\#5}{}_{\alpha}$	$\Gamma_{1^-}^{\#6}{}_{\alpha}$	$h_{1^-}^{\#1}{}_{\alpha}$
$\Gamma_{1^+}^{\#1}\dagger^{\alpha\beta}$	$-\frac{a_0}{4}$	$-\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#2}\dagger^{\alpha\beta}$	$-\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#3}\dagger^{\alpha\beta}$	0	0	$\frac{a_0}{4}$	0	0	0	0	0	0	0
$\Gamma_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	$-\frac{a_0}{4}$	$\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0
$\Gamma_{1^-}^{\#2}\dagger^{\alpha}$	0	0	0	$\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0	0
$\Gamma_{1^-}^{\#3}\dagger^{\alpha}$	0	0	0	0	0	$-\frac{a_0}{3}$	$\frac{\sqrt{5}\,a_0}{6}$	$-\frac{a_0}{6\sqrt{2}}$	$-\frac{a_0}{6}$	0
$\Gamma_{1^-}^{\#4}\dagger^{\alpha}$	0	0	0	0	0	$\frac{\sqrt{5}\,a_0}{6}$	$\frac{a_0}{3}$	$-\frac{1}{6}\sqrt{\frac{5}{2}}\,a_0$	$-\frac{\sqrt{5}\,a_0}{6}$	0
$\Gamma_{1^-}^{\#5}\dagger^{\alpha}$	0	0	0	0	0	$-\frac{a_0}{6\sqrt{2}}$	$-\frac{1}{6}\sqrt{\frac{5}{2}}\,a_0$	$\frac{a_0}{3}$	$\frac{a_0}{6\sqrt{2}}$	0
$\Gamma_{1^-}^{\#6}\dagger^{\alpha}$	0	0	0	0	0	$-\frac{a_0}{6}$	$-\frac{\sqrt{5}\,a_0}{6}$	$\frac{a_0}{6\sqrt{2}}$	$\frac{5a_0}{12}$	0
$h_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	0	0	0	0	0	0	0

Lagrangian density

$$-\frac{1}{2}\,a_0\,\Gamma^{\alpha\beta\chi}\,\Gamma_{\beta\chi\alpha}+\frac{1}{2}\,a_0\,\Gamma^{\alpha}{}_{\alpha}{}^{\beta}\,\Gamma^{\chi}{}_{\beta\chi}-$$
$$\frac{1}{2}\,a_0\,\Gamma^{\alpha\beta\chi}\,\partial_{\beta}h_{\alpha\chi}-\frac{1}{4}\,a_0\,\Gamma^{\alpha}{}_{\alpha}{}^{\beta}\,\partial_{\beta}h^{\chi}{}_{\chi}+\frac{1}{4}\,a_0\,\Gamma^{\alpha\beta}{}_{\alpha}\,\partial_{\beta}h^{\chi}{}_{\chi}-$$
$$\frac{1}{4}\,a_0\,h^{\chi}{}_{\chi}\,\partial_{\beta}\Gamma^{\alpha}{}_{\alpha}{}^{\beta}+\frac{1}{4}\,a_0\,h^{\chi}{}_{\chi}\,\partial_{\beta}\Gamma^{\alpha\beta}{}_{\alpha}-\frac{1}{2}\,a_0\,h_{\alpha\chi}\,\partial_{\beta}\Gamma^{\alpha\beta\chi}+$$
$$\frac{1}{2}\,a_0\,h^{\alpha\beta}\,\partial_{\beta}\partial_{\alpha}h^{\chi}{}_{\chi}-\frac{1}{8}\,a_0\,\partial_{\beta}h^{\chi}{}_{\chi}\,\partial^{\beta}h^{\alpha}{}_{\alpha}+\frac{1}{2}\,a_0\,\Gamma^{\alpha}{}_{\alpha}{}^{\beta}\,\partial_{\chi}h_{\beta}{}^{\chi}-$$
$$\frac{1}{2}\,a_0\,\partial_{\alpha}h^{\alpha\beta}\,\partial_{\chi}h_{\beta}{}^{\chi}+\frac{1}{2}\,a_0\,\partial^{\beta}h^{\alpha}{}_{\alpha}\,\partial_{\chi}h_{\beta}{}^{\chi}-a_0\,h^{\alpha\beta}\,\partial_{\chi}\partial_{\beta}h_{\alpha}{}^{\chi}+$$
$$\frac{1}{4}\,a_0\,h^{\alpha}{}_{\alpha}\,\partial_{\chi}\partial_{\beta}h^{\beta\chi}+\frac{1}{2}\,a_0\,h^{\alpha\beta}\,\partial_{\chi}\partial^{\chi}h_{\alpha\beta}-\frac{1}{4}\,a_0\,h^{\alpha}{}_{\alpha}\,\partial_{\chi}\partial^{\chi}h^{\beta}{}_{\beta}-$$
$$\frac{1}{4}\,a_0\,\partial_{\beta}h_{\alpha\chi}\,\partial^{\chi}h^{\alpha\beta}+\frac{3}{8}\,a_0\,\partial_{\chi}h_{\alpha\beta}\,\partial^{\chi}h^{\alpha\beta}+\frac{1}{2}\,a_0\,h_{\beta\chi}\,\partial^{\chi}\Gamma^{\alpha}{}_{\alpha}{}^{\beta}$$

Added source term: $h^{\alpha\beta}\,\mathcal{T}_{\alpha\beta}+\Gamma^{\alpha\beta\chi}\,\Delta_{\alpha\beta\chi}$

	$\Delta_{0^+}^{\#1}$	$\Delta_{0^+}^{\#2}$	$\Delta_{0^+}^{\#3}$	$\Delta_{0^+}^{\#4}$	$\mathcal{T}_{0^+}^{\#1}$	$\mathcal{T}_{0^+}^{\#2}$	$\Delta_{0^-}^{\#1}$
$\Delta_{0^+}^{\#1}\dagger$	$-\frac{2}{a_0}$	0	0	0	0	0	0
$\Delta_{0^+}^{\#2}\dagger$	0	$-\frac{3}{4\,a_0}$	$\frac{5}{4\,a_0}$	$-\frac{1}{2\sqrt{2}\,a_0}$	0	0	0
$\Delta_{0^+}^{\#3}\dagger$	0	$\frac{5}{4\,a_0}$	$-\frac{3}{4\,a_0}$	$-\frac{1}{2\sqrt{2}\,a_0}$	0	0	0
$\Delta_{0^+}^{\#4}\dagger$	0	$-\frac{1}{2\sqrt{2}\,a_0}$	$-\frac{1}{2\sqrt{2}\,a_0}$	$\frac{1}{2\,a_0}$	0	0	0
$\mathcal{T}_{0^+}^{\#1}\dagger$	0	0	0	0	$\frac{4}{a_0\,k^2}$	0	0
$\mathcal{T}_{0^+}^{\#2}\dagger$	0	0	0	0	0	0	0
$\Delta_{0^-}^{\#1}\dagger$	0	0	0	0	0	0	$-\frac{2}{a_0}$

	$\Delta_{3^-}^{\#1}{}_{\alpha\beta\chi}$
$\Delta_{3^-}^{\#1}\dagger^{\alpha\beta\chi}$	$-\frac{2}{a_0}$

	$\Gamma_{3^-}^{\#1}{}_{\alpha\beta\chi}$
$\Gamma_{3^-}^{\#1}\dagger^{\alpha\beta\chi}$	$-\frac{a_0}{2}$

	$\Delta_{2^+}^{\#1}{}_{\alpha\beta}$	$\Delta_{2^+}^{\#2}{}_{\alpha\beta}$	$\Delta_{2^+}^{\#3}{}_{\alpha\beta}$	$\mathcal{T}_{2^+}^{\#1}{}_{\alpha\beta}$	$\Delta_{2^-}^{\#1}{}_{\alpha\beta\chi}$	$\Delta_{2^-}^{\#2}{}_{\alpha\beta\chi}$
$\Delta_{2^+}^{\#1}\dagger^{\alpha\beta}$	$\frac{4}{a_0}$	0	0	0	0	0
$\Delta_{2^+}^{\#2}\dagger^{\alpha\beta}$	0	$-\frac{2}{a_0}$	0	0	0	0
$\Delta_{2^+}^{\#3}\dagger^{\alpha\beta}$	0	0	$\frac{4}{a_0}$	0	0	0
$\mathcal{T}_{2^+}^{\#1}\dagger^{\alpha\beta}$	0	0	0	$-\frac{8}{a_0\,k^2}$	0	0
$\Delta_{2^-}^{\#1}\dagger^{\alpha\beta\chi}$	0	0	0	0	$\frac{4}{a_0}$	0
$\Delta_{2^-}^{\#2}\dagger^{\alpha\beta\chi}$	0	0	0	0	0	$\frac{4}{a_0}$

	$\Gamma_{2^+}^{\#1}{}_{\alpha\beta}$	$\Gamma_{2^+}^{\#2}{}_{\alpha\beta}$	$\Gamma_{2^+}^{\#3}{}_{\alpha\beta}$	$h_{2^+}^{\#1}{}_{\alpha\beta}$	$\Gamma_{2^-}^{\#1}{}_{\alpha\beta\chi}$	$\Gamma_{2^-}^{\#2}{}_{\alpha\beta\chi}$
$\Gamma_{2^+}^{\#1}\dagger^{\alpha\beta}$	$\frac{a_0}{4}$	0	0	0	0	0
$\Gamma_{2^+}^{\#2}\dagger^{\alpha\beta}$	0	$-\frac{a_0}{2}$	0	0	0	0
$\Gamma_{2^+}^{\#3}\dagger^{\alpha\beta}$	0	0	$\frac{a_0}{4}$	0	0	0
$h_{2^+}^{\#1}\dagger^{\alpha\beta}$	0	0	0	$-\frac{a_0\,k^2}{8}$	0	0
$\Gamma_{2^-}^{\#1}\dagger^{\alpha\beta\chi}$	0	0	0	0	$\frac{a_0}{4}$	0
$\Gamma_{2^-}^{\#2}\dagger^{\alpha\beta\chi}$	0	0	0	0	0	$\frac{a_0}{4}$

	$\Gamma_{0^+}^{\#1}$	$\Gamma_{0^+}^{\#2}$	$\Gamma_{0^+}^{\#3}$	$\Gamma_{0^+}^{\#4}$	$h_{0^+}^{\#1}$	$h_{0^+}^{\#2}$	$\Gamma_{0^-}^{\#1}$
$\Gamma_{0^+}^{\#1}\dagger$	$-\frac{a_0}{2}$	0	0	0	0	0	0
$\Gamma_{0^+}^{\#2}\dagger$	0	$\frac{a_0}{2}$	0	$-\frac{a_0}{2\sqrt{2}}$	0	0	0
$\Gamma_{0^+}^{\#3}\dagger$	0	0	$\frac{a_0}{2}$	$-\frac{a_0}{2\sqrt{2}}$	0	0	0
$\Gamma_{0^+}^{\#4}\dagger$	0	0	0	$\frac{a_0}{2}$	0	0	0
$h_{0^+}^{\#1}\dagger$	0	0	0	0	$\frac{a_0\,k^2}{4}$	0	0
$h_{0^+}^{\#2}\dagger$	0	0	0	0	0	0	0
$\Gamma_{0^-}^{\#1}\dagger$	0	0	0	0	0	0	$-\frac{a_0}{2}$

Source constraints

SO(3) irreps	#
$\mathcal{T}_{0^+}^{\#2} == 0$	1
$\Delta_{0^+}^{\#3}+2\,\Delta_{0^+}^{\#4}+3\,\Delta_{0^+}^{\#2} == 0$	1
$\mathcal{T}_{1^-}^{\#1\,\alpha} == 0$	3
$2\,\Delta_{1^-}^{\#6\,\alpha}+\Delta_{1^-}^{\#4\,\alpha}+2\,\Delta_{1^-}^{\#5\,\alpha}+\Delta_{1^-}^{\#3\,\alpha} == 0$	3
Total #:	8