

Particle spectrum

Wave operator and propagator

	$\Delta_{1^+a\beta}^{\#1}$	$\Delta_{1^+a\beta}^{\#2}$	$\Delta_{1^+a\beta}^{\#3}$	$\Delta_{1^+a}^{\#1}$	$\Delta_{1^+a}^{\#2}$	$\Delta_{1^+a}^{\#3}$	$\Delta_{1^+a}^{\#4}$	$\Delta_{1^+a}^{\#5}$	$\Delta_{1^+a}^{\#6}$	$\mathcal{T}_{1^+a}^{\#1}$
$\Delta_{1^+}^{\#1} \uparrow^{a\beta}$	$\frac{4}{3}(-\frac{1}{a_0+4a_1-4a_2}+\frac{2a_1+a_2-2a_5-6a_7+2a_9}{2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9)})$	$\frac{2}{3}\sqrt{2}(-\frac{1}{a_0+4a_1-4a_2}-\frac{2(2a_1+a_2-2a_5-6a_7+2a_9)}{2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9)})$	$-\frac{4(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#2} \uparrow^{a\beta}$	$\frac{2}{3}\sqrt{2}(-\frac{1}{a_0+4a_1-4a_2}-\frac{2(2a_1+a_2-2a_5-6a_7+2a_9)}{2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9)})$	$-\frac{2}{3(a_0+4a_1-4a_2)}+\frac{8(2a_1+a_2-2a_5-6a_7+2a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4\sqrt{2}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#3} \uparrow^{a\beta}$	$-\frac{4(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4\sqrt{2}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{4(a_0-2a_1-a_2)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#1} \uparrow^a$	0	0	0	$\frac{4(2a_1+a_2-2a_5-6a_7+2a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4\sqrt{2}(2a_1+a_2-2a_5-6a_7+2a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	0	$\frac{4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4(2a_1+a_2+a_9)}{3\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0
$\Delta_{1^+}^{\#2} \uparrow^a$	0	0	0	$\frac{4\sqrt{2}(2a_1+a_2-2a_5-6a_7+2a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{8(2a_1+a_2-2a_5-6a_7+2a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	0	$-\frac{8(2a_1+a_2+a_9)}{3\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0
$\Delta_{1^+}^{\#3} \uparrow^a$	0	0	0	0	0	$-\frac{10}{9(a_0+2a_5-6a_7)}-\frac{1}{6(3a_0-2(a_5-8a_6+5a_7-4a_{13}k^2))}$	$\frac{1}{18}\sqrt{5}(\frac{4}{a_0+2a_5-6a_7}-\frac{3}{3a_0-2a_5+16a_6-10a_7+8a_{13}k^2})$	$-\frac{1}{\sqrt{2}(9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2))}$	$-\frac{1}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	0
$\Delta_{1^+}^{\#4} \uparrow^a$	0	0	0	0	0	$\frac{1}{18}\sqrt{5}(\frac{4}{a_0+2a_5-6a_7}-\frac{3}{3a_0-2a_5+16a_6-10a_7+8a_{13}k^2})$	$-\frac{2}{9(a_0+2a_5-6a_7)}-\frac{5}{6(3a_0-2(a_5-8a_6+5a_7-4a_{13}k^2))}$	$-\frac{\sqrt{\frac{5}{2}}}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	$-\frac{\sqrt{5}}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	0
$\Delta_{1^+}^{\#5} \uparrow^a$	0	0	0	$-\frac{4\sqrt{\frac{3}{2}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{8(2a_1+a_2+a_9)}{3\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{1}{\sqrt{2}(9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2))}$	$-\frac{\sqrt{\frac{5}{2}}}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	$\frac{8(a_0+2a_1+a_2)}{9(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}-\frac{1}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	$(\sqrt{2}(12a_0^2-3a_9^2-a_0(30a_1+15a_2+2a_5-64a_6+22a_7+6a_9-32a_{13}k^2)+2(2a_1+a_2)(a_5-32a_6+11a_7-16a_{13}k^2)))/(9(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))(3a_0-2(a_5-8a_6+5a_7-4a_{13}k^2)))$	0
$\Delta_{1^+}^{\#6} \uparrow^a$	0	0	0	$\frac{4(2a_1+a_2+a_9)}{3\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{1}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	$-\frac{\sqrt{5}}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	$(\sqrt{2}(12a_0^2-3a_9^2-a_0(30a_1+15a_2+2a_5-64a_6+22a_7+6a_9-32a_{13}k^2)+2(2a_1+a_2)(a_5-32a_6+11a_7-16a_{13}k^2)))/(9(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))(3a_0-2(a_5-8a_6+5a_7-4a_{13}k^2)))$	$-\frac{-4a_0+8a_1+4a_2}{9(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}-\frac{2}{9a_0-6(a_5-8a_6+5a_7-4a_{13}k^2)}$	0
$\mathcal{T}_{1^+}^{\#1} \uparrow^a$	0	0	0	0	0	0	0	0	0	0

	$\Gamma_{1^+a\beta}^{\#1}$	$\Gamma_{1^+a\beta}^{\#2}$	$\Gamma_{1^+a\beta}^{\#3}$	$\Gamma_{1^+a}^{\#1}$	$\Gamma_{1^+a}^{\#2}$	$\Gamma_{1^+a}^{\#3}$	$\Gamma_{1^+a}^{\#4}$	$\Gamma_{1^+a}^{\#5}$	$\Gamma_{1^+a}^{\#6}$	$h_{1^+a}^{\#1}$
$\Gamma_{1^+}^{\#1} \uparrow^{a\beta}$	$\frac{1}{4}(-a_0-6a_1+5a_2)$	$-\frac{a_0+2a_1-3a_2}{2\sqrt{2}}$	$\frac{1}{4}(-2a_1-a_2-a_9)$	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#2} \uparrow^{a\beta}$	$-\frac{a_0+2a_1-3a_2}{2\sqrt{2}}$	$\frac{1}{2}(-2a_1+a_2)$	$\frac{2a_1+a_2+a_9}{2\sqrt{2}}$	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#3} \uparrow^{a\beta}$	$\frac{1}{4}(-2a_1-a_2-a_9)$	$\frac{2a_1+a_2+a_9}{2\sqrt{2}}$	$-\frac{3}{4}(2a_1+a_2-2a_5-6a_7+2a_9)$	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#1} \uparrow^a$	0	0	0	$\frac{1}{12}(a_0-2a_1-a_2)$	$\frac{a_0-2a_1-a_2}{6\sqrt{2}}$	0	0	$-\frac{2a_1+a_2+a_9}{2\sqrt{6}}$	$\frac{2a_1+a_2+a_9}{4\sqrt{3}}$	0
$\Gamma_{1^+}^{\#2} \uparrow^a$	0	0	0	$\frac{a_0-2a_1-a_2}{6\sqrt{2}}$	$\frac{1}{6}(a_0-2a_1-a_2)$	0	0	$-\frac{2a_1+a_2+a_9}{2\sqrt{3}}$	$\frac{2a_1+a_2+a_9}{2\sqrt{6}}$	0
$\Gamma_{1^+}^{\#3} \uparrow^a$	0	0	0	0	0	$\frac{1}{12}(-9a_0-14a_5-8a_6+50a_7-4a_{13}k^2)$	$\frac{1}{3}\sqrt{5}(a_5-2a_6-a_7-a_{13}k^2)$	$-\frac{3a_0+2(a_5-8a_6+5a_7-4a_{13}k^2)}{12\sqrt{2}}$	$-\frac{a_0}{4}+\frac{1}{6}(a_5-8a_6+5a_7-4a_{13}k^2)$	0
$\Gamma_{1^+}^{\#4} \uparrow^a$	0	0	0	0	0	$\frac{1}{12}(-9a_0+2a_5-40a_6+34a_7-20a_{13}k^2)$	$\frac{1}{12}(\sqrt{\frac{5}{2}}(-3a_0+2(a_5-8a_6+5a_7-4a_{13}k^2)))$	$\frac{1}{12}\sqrt{5}(-3a_0+2(a_5-8a_6+5a_7-4a_{13}k^2))$	$-\frac{3a_0-6a_1-3a_2+4a_5+16a_6+8a_7-6a_9+8a_{13}k^2}{6\sqrt{2}}$	0
$\Gamma_{1^+}^{\#5} \uparrow^a$	0	0	0	$-\frac{2a_1+a_2+a_9}{2\sqrt{6}}$	$-\frac{2a_1+a_2+a_9}{2\sqrt{3}}$	$-\frac{3a_0+2(a_5-8a_6+5a_7-4a_{13}k^2)}{12\sqrt{2}}$	$\frac{1}{12}\sqrt{\frac{5}{2}}(-3a_0+2(a_5-8a_6+5a_7-4a_{13}k^2))$	$\frac{1}{12}(-3a_0-2(6a_1+3a_2-7a_5+8a_6-23a_7+6a_9+4a_{13}k^2))$	$-\frac{3a_0-6a_1-3a_2+4a_5+16a_6+8a_7-6a_9+8a_{13}k^2}{6\sqrt{2}}$	0
$\Gamma_{1^+}^{\#6} \uparrow^a$	0	0	0	$\frac{2a_1+a_2+a_9}{4\sqrt{3}}$	$\frac{2a_1+a_2+a_9}{2\sqrt{6}}$	$-\frac{a_0}{4}+\frac{1}{6}(a_5-8a_6+5a_7-4a_{13}k^2)$	$\frac{1}{12}\sqrt{5}(-3a_0+2(a_5-8a_6+5a_7-4a_{13}k^2))$	$-\frac{1}{12}(-6a_0-6a_1-3a_2+10a_5-32a_6+38a_7-6a_9-16a_{13}k^2)$	$-\frac{3a_0-6a_1-3a_2+4a_5+16a_6+8a_7-6a_9+8a_{13}k^2}{6\sqrt{2}}$	0
$h_{1^+}^{\#1} \uparrow^a$	0	0	0	0	0	0	0	0	0	0

	$\Delta_{2^+a\beta}^{\#1}$	$\Delta_{2^+a\beta}^{\#2}$	$\Delta_{2^+a\beta}^{\#3}$	$\mathcal{T}_{2^+a\beta}^{\#1}$	$\Delta_{2^+a\beta\chi}^{\#1}$	$\Delta_{2^+a\beta\chi}^{\#2}$
$\Delta_{2^+}^{\#1} \uparrow^{a\beta}$	$\frac{4(2a_1+a_2-2a_5-6a_7+2a_9)}{2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9)}$	0	$-\frac{4(2a_1+a_2+a_9)}{\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	0	0
$\Delta_{2^+}^{\#2} \uparrow^{a\beta}$	0	$-\frac{4}{3(a_0+2a_5-6a_7)}$	0	0	0	0
$\Delta_{2^+}^{\#3} \uparrow^{a\beta}$	$-\frac{4(2a_1+a_2+a_9)}{\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	$-\frac{4(a_0-2a_1-a_2)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	0	0	0
$\mathcal{T}_{2^+}^{\#1} \uparrow^{a\beta}$	0	0	0	$-\frac{8}{a_0k^2}$	0	0
$\Delta_{2^+}^{\#1} \uparrow^{a\beta\chi}$	0	0	0	0	$\frac{4(2a_1+a_2-2a_5-6a_7+2a_9)}{2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9)}$	$-\frac{4(2a_1+a_2+a_9)}{\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$
$\Delta_{2^+}^{\#2} \uparrow^{a\beta\chi}$	0	0	0	0	$\frac{4(2a_1+a_2+a_9)}{\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{4(a_0-2a_1-a_2)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$

	$\Gamma_{2^+a\beta}^{\#1}$	$\Gamma_{2^+a\beta}^{\#2}$	$\Gamma_{2^+a\beta}^{\#3}$	$h_{2^+a\beta}^{\#1}$	$\Gamma_{2^+a\beta\chi}^{\#1}$	$\Gamma_{2^+a\beta\chi}^{\#2}$
$\Gamma_{2^+}^{\#1} \uparrow^{a\beta}$	$\frac{1}{4}(a_0-2a_1-a_2)$	0	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	0	0	0
$\Gamma_{2^+}^{\#2} \uparrow^{a\beta}$	0	$\frac{3}{4}(a_0+2a_5-6a_7)$	0	0	0	0
$\Gamma_{2^+}^{\#3} \uparrow^{a\beta}$	$\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	0	$-\frac{3}{4}(2a_1+a_2-2a_5-6a_7+2a_9)$	0	0	0
$h_{2^+}^{\#1} \uparrow^{a\beta}$	0	0	0	$-\frac{a_0k^2}{8}$	0	0
$\Gamma_{2^+}^{\#1} \uparrow^{a\beta\chi}$	0	0	0	0	$\frac{1}{4}(a_0-2a_1-a_2)$	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$
$\Gamma_{2^+}^{\#2} \uparrow^{a\beta\chi}$	0	0	0	0	$\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	$-\frac{3}{4}(2a_1+a_2-2a_5-6a_7+2a_9)$

	$\Delta_{0^+}^{\#1}$	$\Delta_{0^+}^{\#2}$	$\Delta_{0^+}^{\#3}$	$\Delta_{0^+}^{\#4}$	$\mathcal{T}_{0^+}^{\#1}$	$\mathcal{T}_{0^+}^{\#2}$	$\Delta_{0^+}^{\#1}$
$\Delta_{0^+}^{\#1} \uparrow$	0	0	0	0	0	0	0
$\Delta_{0^+}^{\#2} \uparrow$	$-\frac{2}{3(a_0+2a_5-6a_7)}-\frac{1}{6a_0-4(a_5-8a_6+5a_7)}$	$-\frac{2}{3(a_0+2a_5-6a_7)}-\frac{1}{6a_0-4(a_5-8a_6+5a_7)}$	$-\frac{1}{\sqrt{2}(3a_0-2(a_5-8a_6+5a_7))}$	$-\frac{1}{\sqrt{2}(3a_0-2(a_5-8a_6+5a_7))}$	0	0	0
$\Delta_{0^+}^{\#3} \uparrow$	$-\frac{2}{3(a_0+2a_5-6a_7)}-\frac{1}{6a_0-4(a_5-8a_6+5a_7)}$	$-\frac{2}{3(a_0+2a_5-6a_7)}-\frac{1}{6a_0-4(a_5-8a_6+5a_7)}$	$-\frac{1}{\sqrt{2}(3a_0-2(a_5-8a_6+5a_7))}$	$-\frac{1}{\sqrt{2}(3a_0-2(a_5-8a_6+5a_7))}$	0	0	0
$\Delta_{0^+}^{\#4} \uparrow$	$-\frac{1}{\sqrt{2}(3a_0-2(a_5-8a_6+5a_7))}$	$-\frac{1}{\sqrt{2}(3a_0-2(a_5-8a_6+5a_7))}$	$-\frac{1}{-3a_0+2(a_5-8a_6+5a_7)}$	$-\frac{1}{-3a_0+2(a_5-8a_6+5a_7)}$	0	0	0
$\mathcal{T}_{0^+}^{\#1} \uparrow$	0	0	0	0	$\frac{4}{a_0k^2}$	0	0
$\mathcal{T}_{0^+}^{\#2} \uparrow$	0	0	0	0	0	0	0
$\Delta_{0^+}^{\#1} \uparrow$	0	0	0	0	0	0	$-\frac{2}{a_0+4a_1-4a_2}$

Massive and massless spectra

Massive particle

Pole residue:  $-\frac{1}{4a_{13}} > 0$

Polarisations: 3

Square mass:  $\frac{-3a_0+2(a_5-8a_6+5a_7)}{8a_{13}} > 0$

Spin: 1

Parity: Odd

Quadratic pole

Pole residue:  $-\frac{1}{a_0} > 0$

Polarisations: 2

Unitarity conditions

$a_0 < 0$  &  $a_7 > \frac{1}{10}(3a_0-2a_5+16a_6)$  &  $a_{13} > 0$

Quadratic (free) action

S =

$$\iiint \int (\frac{1}{24} (4 (-2 a_0+2 a_1+ a_2-12 a_6+2 a_9) \Gamma_{\mu \mu}^{\alpha \beta} \Gamma^{\alpha \beta}{}_{\beta}-3 (a_0+8 a_1-2 a_5-18 a_7+4 a_9) \Gamma_{a \beta \mu}^{\alpha \beta} \Gamma^{\alpha \beta \mu}{}_{\beta}-3 a_0 \Gamma_{a \mu \beta}^{\alpha \beta \mu} \Gamma^{\alpha \beta \mu}{}_{\beta}-54 a_7 \Gamma_{a \mu \beta}^{\alpha \beta \mu} \Gamma^{\alpha \beta \mu}{}_{\beta}-12 a_9 \Gamma_{a \mu \beta}^{\alpha \beta \mu} \Gamma^{\alpha \beta \mu}{}_{\beta}-12 a_2 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}-12 a_5 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}-12 a_0 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}+2 a_2 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}-24 a_5 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}+12 a_9 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}+2 a_0 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}-16 a_1 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}-8 a_2 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}+12 a_5 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}+12 a_7 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}-12 a_9 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}+2 a_0 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}+12 a_5 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}+12 a_7 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}-4 a_9 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}+24 a_1 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}-12 a_5 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}+12 a_9 \Gamma^{\alpha \beta \mu}{}_{\beta} \Gamma_{\beta a \mu}^{\alpha \beta \mu}+4 a_0 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}-24 a_7 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}+4 a_9 \Gamma^{\alpha \beta}{}_{\beta} \Gamma_{\beta}^{\mu \mu}-12 a_7 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}+8 a_1 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}+4 a_2 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}-12 a_7 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}+4 a_9 \Gamma^{\alpha \beta}{}_{\alpha} \Gamma_{\beta}^{\mu \mu}+24 h^{\alpha \beta} \Gamma_{\alpha \beta}^{\alpha \beta}-24 \Gamma^{\alpha \beta \chi}{}_{\alpha} \Delta_{\beta \chi}^{\alpha \beta \mu}-12 a_0 \Gamma^{\alpha \beta \mu}{}_{\beta} \partial_{\beta} h_{a \mu}^{\alpha \beta}-6 a_0 \Gamma^{\alpha \beta}{}_{\beta} \partial_{\beta} h_{\mu}^{\alpha \beta}+6 a_0 \Gamma^{\alpha \beta}{}_{\alpha} \partial_{\beta} h_{\mu}^{\alpha \beta}-6 a_0 h^{\alpha \beta} \partial_{\mu} \partial_{\beta} h_{\alpha}^{\mu}+6 a_0 h^{\alpha \beta} \partial_{\beta} \partial_{\alpha} h_{\mu}^{\mu}-12 a_0 h_{a \mu} \partial_{\beta} \Gamma^{\alpha \beta \mu}{}_{\beta}+6 a_0 h^{\alpha \beta} \partial_{\beta} \partial_{\alpha} h_{\mu}^{\mu}-3 a_0 \partial_{\beta} h_{\mu}^{\mu} \partial^{\beta} h_{\alpha}^{\alpha}+12 a_0 \Gamma^{\alpha \beta}{}_{\beta} \partial_{\mu} h_{\alpha}^{\mu}+6 a_0 \partial^{\beta} h_{\alpha}^{\alpha} \partial_{\mu} h_{\beta}^{\mu}-12 a_0 h^{\alpha \beta} \partial_{\mu} \partial_{\beta} h_{\alpha}^{\mu}+6 a_0 h_{\alpha}^{\alpha} \partial_{\mu} \partial_{\beta} h^{\beta \mu}+6 a_0 h^{\alpha \beta} \partial_{\mu} \partial_{\beta} h_{\alpha}^{\mu}-6 a_0 h_{\alpha}^{\alpha} \partial_{\mu} \partial^{\mu} h_{\beta}^{\beta}-6 a_0 \partial_{\beta} h_{a \mu} \partial^{\mu} h^{\alpha \beta}+3 a_0 \partial_{\mu} h_{a \beta} \partial^{\mu} h^{\alpha \beta}+12 a_0 h_{\beta \mu} \partial^{\mu} \Gamma^{\alpha \beta}{}_{\alpha}+24 a_{13} \partial_{\alpha} \Gamma_{\alpha}^{\nu} \partial^{\mu} \Gamma^{\alpha \beta}{}_{\beta}][t, x, y, z] d z d y d x d t$$

Source constraints	Fundamental fields	Multiplicities
$\mathcal{T}_0^{\#2} = 0$	$\partial_{\beta} \Delta^{\alpha \beta} = 0$	1
$\Delta_{0^+}^{\#3} + 3 \Delta_{0^+}^{\#2} = 2 \Delta_{0^+}^{\#4}$	$\partial_{\alpha} \Delta^{\alpha \beta} = 2 (\partial_{\beta} \Delta^{\alpha}{}_{\beta} + \partial_{\beta} \Delta^{\alpha \beta}{}_{\alpha})$	1
$\Delta_{0^+}^{\#1} = 0$	$\partial_{\beta} \Delta^{\alpha}{}_{\alpha} = \partial_{\beta} \Delta^{\alpha \beta}{}_{\alpha}$	1
$\mathcal{T}_{1^+}^{\#1 \alpha} = 0$	$\partial_{\alpha} \partial_{\beta} \Delta^{\alpha \beta \chi} = \partial_{\alpha} \partial_{\beta} \Delta^{\alpha \beta}{}_{\chi}$	3