	$\Delta_{1}^{\#1}_{+}{}_{lphaeta}$	$\Delta_{1}^{\#2}_{+  lphaeta}$	$\Delta_{1}^{\#3}_{+  lphaeta}$	$\Delta_{1^{-}\alpha}^{\#1}$	$\Delta_{1^{-}\alpha}^{\#2}$	$\Delta_{1}^{\#3}{}_{lpha}$	$\Delta_{1}^{\#4}{}_{lpha}$	$\Delta^{\#5}_{1^-lpha}$	$\Delta^{\#6}_{1^-lpha}$ ${\cal T}^{\#1}_{1^-lpha}$
$\Delta_1^{#1} \dagger^{\alpha\beta}$	$\frac{4}{3} \left( -\frac{1}{a_0 + 4a_1 - 4a_2} + \frac{2a_1 + a_2 - 2a_5 - 6a_7 + 2a_9}{2(2a_1 + a_2)(a_5 + 3a_7) + a_9^2 + a_0(2a_1 + a_2 - 2a_5 - 6a_7 + 2a_9)} \right)$	$\frac{2}{3}\sqrt{2}\left(-\frac{1}{a_0+4a_1-4a_2}-\frac{2(2a_1+a_2-2a_5-6a_7+2a_9)}{2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9)}\right)$	$-\frac{4 (2 a_1+a_2+a_9)}{3 (2 (2 a_1+a_2) (a_5+3 a_7)+a_9^2+a_0 (2 a_1+a_2-2 a_5-6 a_7+2 a_9))}$	0	0	0	0	0	0 0
				0	0	0	0	0	0 0
$\Delta_1^{#3} + \alpha^{\beta}$	$-\frac{4 (2 a_1+a_2+a_9)}{3 (2 (2 a_1+a_2) (a_5+3 a_7)+a_9^2+a_0 (2 a_1+a_2-2 a_5-6 a_7+2 a_9))}$	$\frac{4\sqrt{2}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{4 (a_0 - 2 a_1 - a_2)}{3 (2 (2 a_1 + a_2) (a_5 + 3 a_7) + a_9^2 + a_0 (2 a_1 + a_2 - 2 a_5 - 6 a_7 + 2 a_9))}$	0	0	0	0	0	0 0
$\Delta_{1}^{#1} \dagger^{\alpha}$	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	$-\frac{4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4(2a_1+a_2+a_9)}{3\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$
$\Delta_1^{#2} \dagger^{\alpha}$	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	$-\frac{8(2a_1+a_2+a_9)}{3\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$
$\Delta_1^{#3} \dagger^{\alpha}$	0	0	0	0	0	$-\frac{10}{9(a_0+2a_5-6a_7)}-\frac{1}{6(3a_0-2(a_5-8a_6+5a_7-4c_{13}k^2))}$	$\frac{1}{18} \sqrt{5} \left( \frac{4}{a_0 + 2a_5 - 6a_7} - \frac{3}{3a_0 - 2a_5 + 16a_6 - 10a_7 + 8c_{13}k^2} \right)$	$-\frac{1}{\sqrt{2} (9 a_0 - 6 (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2))}$	$-\frac{1}{9 a_0 - 6 (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2)}$
$\Delta_{1}^{#4} \dagger^{\alpha}$	0	0	0	0	0	$\frac{1}{18} \sqrt{5} \left( \frac{4}{a_0 + 2a_5 - 6a_7} - \frac{3}{3a_0 - 2a_5 + 16a_6 - 10a_7 + 8c_{13}k^2} \right)$	$-\frac{2}{9(a_0+2a_5-6a_7)}-\frac{5}{6(3a_0-2(a_5-8a_6+5a_7-4c_{13}k^2))}$	$-\frac{\sqrt{\frac{5}{2}}}{9 a_0-6 (a_5-8 a_6+5 a_7-4 c_{13} k^2)}$	$-\frac{\sqrt{5}}{9 a_0 - 6 (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2)}$
$\Delta_1^{\#5} \dagger^{\alpha}$	0	0	0	$-\frac{4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{8 (2 a_1 + a_2 + a_9)}{3 \sqrt{3} (2 (2 a_1 + a_2) (a_5 + 3 a_7) + a_9^2 + a_0 (2 a_1 + a_2 - 2 a_5 - 6 a_7 + 2 a_9))}$	$-\frac{1}{\sqrt{2} (9a_0-6(a_5-8a_6+5a_7-4c_{13}k^2))}$	$-\frac{\sqrt{\frac{5}{2}}}{9 a_0-6 (a_5-8 a_6+5 a_7-4 c_{13} k^2)}$	$\frac{8(-a_0+2a_1+a_2)}{9(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))} - \frac{1}{9a_0-6(a_5-8a_6+5a_7-4c_{13}k^2)}$	$(\sqrt{2} (12a_0^2 - 3a_9^2 - a_0 (30a_1 + 15a_2 + 2a_5 - 64a_6 + 22a_7 + 6a_9 - 32c_{13}k^2) + a_0 (2a_1 + a_2) (a_5 - 32a_6 + 11a_7 - 16c_{13}k^2)))/$ $(9 (2 (2a_1 + a_2) (a_5 + 3a_7) + a_9^2 + a_0 (2a_1 + a_2 - 2a_5 - 6a_7 + 2a_9))$ $(3a_0 - 2 (a_5 - 8a_6 + 5a_7 - 4c_{13}k^2)))$
$\Delta_1^{\#6} \uparrow^{lpha}$	0	0	0	$\frac{4(2a_1+a_2+a_9)}{3\sqrt{3}(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$\frac{4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)}{3(2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9))}$	$-\frac{1}{9 a_0 - 6 (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2)}$	$-\frac{\sqrt{5}}{9a_0-6(a_5-8a_6+5a_7-4c_{13}k^2)}$	$(\sqrt{2} (12a_0^2 - 3a_9^2 - a_0 (30a_1 + 15a_2 + 2a_5 - 64a_6 + 22a_7 + 6a_9 - 32c_{13}k^2) + 2(2a_1 + a_2)(a_5 - 32a_6 + 11a_7 - 16c_{13}k^2)))/$ $(9(2(2a_1 + a_2)(a_5 + 3a_7) + a_9^2 + a_0(2a_1 + a_2 - 2a_5 - 6a_7 + 2a_9))$ $(3a_0 - 2(a_5 - 8a_6 + 5a_7 - 4c_{13}k^2)))$	
$\mathcal{T}_1^{\sharp 1} \dagger^{lpha}$	0	0	0	0	0	0	0	0	0 0

	$\Gamma_{1}^{\#1}{}_{lphaeta}$	$\Gamma_{1}^{\#2}{}_{lphaeta}$	$\Gamma^{\#3}_{1^+lphaeta}$	$\Gamma_{1-\alpha}^{\#1}$	$\Gamma_{1}^{#2}$ $\alpha$	$\Gamma_{1}^{#3}{}_{\alpha}$	$\Gamma_{1}^{#4}$	$\Gamma_{1}^{\#5}{}_{\alpha}$	Γ <sub>1</sub> - α	$h_{1}^{\#1}{}_{\alpha}$
Γ <sub>1</sub> <sup>#1</sup> †	$\frac{1}{4} (-a_0 - 6 a_1 +$	$5 a_2$ ) $-\frac{a_0+2 a_1-3 a_2}{2 \sqrt{2}}$	$\frac{1}{4} \left( -2 a_1 - a_2 - a_9 \right)$	0	0	0	0	0	0	0
Γ <sub>1</sub> <sup>#2</sup> †	$-\frac{a_0+2a_1-3a}{2\sqrt{2}}$	$\frac{1}{2} \left( -2 a_1 + a_2 \right)$	$\frac{2a_1 + a_2 + a_9}{2\sqrt{2}}$	0	0	0	0	0	0	0
Γ <sub>1</sub> <sup>#3</sup> †	$\frac{1}{4} \left( -2 a_1 - a_2 - a_3 \right)$	$a_9$ ) $\frac{2a_1+a_2+a_9}{2\sqrt{2}}$	$-\frac{3}{4}(2a_1+a_2-2a_5-6a_7+2a_9)$	0	0	0	0	0	0	0
Γ <sub>1</sub> -1 -	$t^{\alpha}$ 0	0	0	$\frac{1}{12} (a_0 - 2 a_1 - a_2)$	$\frac{a_0-2a_1-a_2}{6\sqrt{2}}$	0	0	$-\frac{2a_1+a_2+a_9}{2\sqrt{6}}$	$\frac{2a_1 + a_2 + a_9}{4\sqrt{3}}$	0
Γ <sub>1</sub> -2 -	$t^{\alpha}$ 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
Γ <sub>1</sub> -3 -	$\dagger^{\alpha}$ 0	0	0	0	0	$\frac{1}{12} \left( -9 a_0 - 14 a_5 - 8 a_6 + 50 a_7 - 4 c_{13} k^2 \right)$	$\frac{1}{3} \sqrt{5} (a_5 - 2 a_6 - a_7 - c_{13} k^2)$	$\frac{-3 a_0 + 2 (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2)}{12 \sqrt{2}}$	$-\frac{a_0}{4} + \frac{1}{6} (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2)$	0
Γ <sub>1</sub> -4 -	$t^{\alpha}$ 0	0	0	0	0	$\frac{1}{3} \sqrt{5} (a_5 - 2 a_6 - a_7 - c_{13} k^2)$	$\frac{1}{12} \left( -9  a_0 + 2  a_5 - 40  a_6 + 34  a_7 - 20  c_{13}  k^2 \right)$	$\frac{1}{12} \sqrt{\frac{5}{2}} \left( -3 a_0 + 2 \left( a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2 \right) \right)$	$\frac{1}{12} \sqrt{5} \left( -3 a_0 + 2 \left( a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2 \right) \right)$	0
Γ <u>#</u> 5 -	t <sup>α</sup> 0	0	0	$-\frac{2a_1+a_2+a_9}{2\sqrt{6}}$	$-\frac{2a_1+a_2+a_9}{2\sqrt{3}}$	$\frac{-3 a_0 + 2 (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2)}{12 \sqrt{2}}$	$\frac{1}{12} \sqrt{\frac{5}{2}} \left( -3 a_0 + 2 \left( a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2 \right) \right)$	$\frac{1}{12} \left( -3 a_0 - 2 \left( 6 a_1 + 3 a_2 - 7 a_5 + 8 a_6 - 23 a_7 + 6 a_9 + 4 c_{13} k^2 \right) \right)$	$-\frac{3a_0-6a_1-3a_2+4a_5+16a_6+8a_7-6a_9+8c_{13}k^2}{6\sqrt{2}}$	0
۲ <u>#</u> 6 -	t <sup>α</sup> 0	0	0	$\frac{2a_1 + a_2 + a_9}{4\sqrt{3}}$	$\frac{2a_1 + a_2 + a_9}{2\sqrt{6}}$	$-\frac{a_0}{4} + \frac{1}{6} (a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2)$	$\frac{1}{12} \sqrt{5} \left( -3 a_0 + 2 \left( a_5 - 8 a_6 + 5 a_7 - 4 c_{13} k^2 \right) \right)$	$-\frac{3 a_0 - 6 a_1 - 3 a_2 + 4 a_5 + 16 a_6 + 8 a_7 - 6 a_9 + 8 c_{13} k^2}{6 \sqrt{2}}$	$\frac{1}{12} \left( -6 a_0 - 6 a_1 - 3 a_2 + 10 a_5 - 32 a_6 + 38 a_7 - 6 a_9 - 16 c_{13} k^2 \right)$	<sup>2</sup> ) 0
h <sub>1</sub> +1 -	$+^{\alpha}$ 0	0	0	0	0	0	0	0	0	0

Total #:	$\Delta_1^{\#1\alpha} == \Delta_1^{\#2\alpha}$	$2 \left( \Delta_{1.}^{\#6\alpha} + \Delta_{1.}^{\#5\alpha} \right) == \Delta_{1.}^{\#4\alpha} + \Delta_{1.}^{\#3\alpha}$	$\mathcal{T}_{1}^{\#1\alpha} == 0$	$\Delta_{0+}^{\#1} == 0$	$\Delta_{0+}^{#3} + 3 \Delta_{0+}^{#2} == 2 \Delta_{0+}^{#4}$	$T_{0+}^{\#2} == 0$	SO(3) irreps	Source constraints
12	ω	ω	ω	1	1	1	#	

Lagrangian density
$-\frac{1}{3} a_0 \Gamma_{\alpha \mu}^{\mu} \Gamma_{\beta}^{\alpha\beta} + \frac{1}{3} a_1 \Gamma_{\alpha \mu}^{\mu} \Gamma_{\beta}^{\alpha\beta} + \frac{1}{6} a_2 \Gamma_{\alpha \mu}^{\mu} \Gamma_{\beta}^{\alpha\beta} -$
$2 a_6 \Gamma_{\alpha \mu}^{\mu} \Gamma_{\beta}^{\alpha\beta} + \frac{1}{3} a_9 \Gamma_{\alpha \mu}^{\mu} \Gamma_{\beta}^{\alpha\beta} - \frac{1}{8} a_0 \Gamma_{\alpha\beta\mu} \Gamma^{\alpha\beta\mu} - a_1 \Gamma_{\alpha\beta\mu} \Gamma^{\alpha\beta\mu} +$
$\frac{1}{4} a_5 \Gamma_{\alpha\beta\mu} \Gamma^{\alpha\beta\mu} + \frac{9}{4} a_7 \Gamma_{\alpha\beta\mu} \Gamma^{\alpha\beta\mu} - \frac{1}{2} a_9 \Gamma_{\alpha\beta\mu} \Gamma^{\alpha\beta\mu} - \frac{1}{8} a_0 \Gamma_{\alpha\mu\beta} \Gamma^{\alpha\beta\mu} -$
$\frac{1}{2} a_2 \Gamma_{\alpha\mu\beta} \Gamma^{\alpha\beta\mu} + \frac{1}{4} a_5 \Gamma_{\alpha\mu\beta} \Gamma^{\alpha\beta\mu} + \frac{9}{4} a_7 \Gamma_{\alpha\mu\beta} \Gamma^{\alpha\beta\mu} - \frac{1}{2} a_9 \Gamma_{\alpha\mu\beta} \Gamma^{\alpha\beta\mu} -$
$\frac{1}{2} a_2 \Gamma^{\alpha\beta\mu} \Gamma_{\beta\alpha\mu} - \frac{1}{2} a_5 \Gamma^{\alpha\beta\mu} \Gamma_{\beta\alpha\mu} - \frac{1}{2} a_0 \Gamma^{\alpha\beta\mu} \Gamma_{\beta\mu\alpha} + a_2 \Gamma^{\alpha\beta\mu} \Gamma_{\beta\mu\alpha} -$
$a_5 \Gamma^{\alpha\beta\mu} \Gamma_{\beta\mu\alpha} + \frac{1}{2} a_9 \Gamma^{\alpha\beta\mu} \Gamma_{\beta\mu\alpha} + \frac{1}{12} a_0 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\mu}_{\beta\mu} - \frac{2}{3} a_1 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\mu}_{\beta\mu} -$
$\frac{1}{3} a_2 \Gamma^{\alpha \beta}_{\alpha} \Gamma^{\mu}_{\beta \mu} + \frac{1}{2} a_5 \Gamma^{\alpha \beta}_{\alpha} \Gamma^{\mu}_{\beta \mu} + \frac{1}{2} a_7 \Gamma^{\alpha \beta}_{\alpha} \Gamma^{\mu}_{\beta \mu} - \frac{1}{2} a_9 \Gamma^{\alpha \beta}_{\alpha} \Gamma^{\mu}_{\beta \mu} +$
$\frac{1}{12} a_0 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\mu}_{\mu} + \frac{1}{2} a_5 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\mu}_{\mu} + \frac{1}{2} a_7 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\mu}_{\mu} - \frac{1}{6} a_9 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\mu}_{\mu} +$
$a_1 \Gamma^{\alpha\beta\mu} \Gamma_{\mu\beta\alpha} - \frac{1}{2} a_5 \Gamma^{\alpha\beta\mu} \Gamma_{\mu\beta\alpha} + \frac{1}{2} a_9 \Gamma^{\alpha\beta\mu} \Gamma_{\mu\beta\alpha} + \frac{1}{6} a_0 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\mu}_{\beta\mu} -$
$a_7  \Gamma^{\alpha \beta}_{\alpha}  \Gamma^{\mu}_{\beta\mu} + \tfrac{1}{6}  a_9  \Gamma^{\alpha \beta}_{\alpha}  \Gamma^{\mu}_{\beta\mu} - \tfrac{1}{2}  a_7  \Gamma^{\alpha\beta}_{\alpha}  \Gamma^{\mu}_{\beta\mu} + \tfrac{1}{3}  a_1  \Gamma^{\alpha \beta}_{\alpha}  \Gamma^{\mu}_{\mu\beta} +$
$\frac{1}{6} a_2 \Gamma^{\alpha \beta}_{\alpha} \Gamma^{\mu}_{\mu\beta} - \frac{1}{2} a_7 \Gamma^{\alpha \beta}_{\alpha} \Gamma^{\mu}_{\mu\beta} + \frac{1}{6} a_9 \Gamma^{\alpha \beta}_{\alpha} \Gamma^{\mu}_{\mu\beta} - \frac{1}{2} a_0 \Gamma^{\alpha\beta\mu} \partial_{\beta} h_{\alpha\mu} -$
$\frac{1}{4} a_0 \Gamma^{\alpha \beta}_{\alpha} \partial_{\beta} h^{\mu}_{\mu} + \frac{1}{4} a_0 \Gamma^{\alpha \beta}_{\alpha} \partial_{\beta} h^{\mu}_{\mu} - \frac{1}{4} a_0 h^{\mu}_{\mu} \partial_{\beta} \Gamma^{\alpha \beta}_{\alpha} +$
$\frac{1}{4} a_0 h^{\mu}_{\ \mu} \partial_{\beta} \Gamma^{\alpha\beta}_{\ \alpha} - \frac{1}{2} a_0 h_{\alpha\mu} \partial_{\beta} \Gamma^{\alpha\beta\mu} + \frac{1}{4} a_0 h^{\alpha\beta} \partial_{\beta} \partial_{\alpha} h^{\mu}_{\ \mu} -$
$\frac{1}{8} a_0 \partial_{\beta} h^{\mu}_{\ \mu} \partial^{\beta} h^{\alpha}_{\ \alpha} + \frac{1}{2} a_0 \Gamma^{\alpha}_{\ \alpha}{}^{\beta} \partial_{\mu} h_{\beta}^{\ \mu} + \frac{1}{4} a_0 \partial^{\beta} h^{\alpha}_{\ \alpha} \partial_{\mu} h_{\beta}^{\ \mu} -$
$\frac{1}{2} a_0 h^{\alpha\beta} \partial_{\mu} \partial_{\beta} h_{\alpha}^{\ \mu} + \frac{1}{4} a_0 h^{\alpha}_{\ \alpha} \partial_{\mu} \partial_{\beta} h^{\beta\mu} + \frac{1}{4} a_0 h^{\alpha\beta} \partial_{\mu} \partial^{\mu} h_{\alpha\beta}$
$\frac{1}{4} a_0 h^{\alpha}_{\alpha} \partial_{\mu} \partial^{\mu} h^{\beta}_{\beta} - \frac{1}{4} a_0 \partial_{\beta} h_{\alpha\mu} \partial^{\mu} h^{\alpha\beta} + \frac{1}{8} a_0 \partial_{\mu} h_{\alpha\beta} \partial^{\mu} h^{\alpha\beta} +$
$\frac{1}{2} a_0 h_{\beta\mu} \partial^{\mu} \Gamma^{\alpha}_{\alpha}{}^{\beta} + c_{13} \partial_{\alpha} \Gamma^{\nu}_{\mu\nu} \partial^{\mu} \Gamma^{\alpha\beta}_{\beta} - c_{13} \partial_{\mu} \Gamma^{\nu}_{\alpha\nu} \partial^{\mu} \Gamma^{\alpha\beta}_{\beta}$
Added source term: $h^{\alpha\beta} \mathcal{T}_{\alpha\beta} + \Gamma^{\alpha\beta\chi} \Delta_{\alpha\beta\chi}$

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<b>1</b> #2 . αβχ	$\Gamma_{2}^{#1} \uparrow^{\alpha\beta\chi}$	$h_{2^{+}}^{#1} \dagger^{\alpha\beta}$	$\Gamma_{2^{+}}^{#3} \dagger^{\alpha\beta}$	$\Gamma_{2+}^{#2} \dagger^{\alpha\beta}$	$\Gamma_{2}^{#1} \dagger^{\alpha\beta}$		$\Gamma_{0^{-}}^{\#1} + 0$	h <sub>0</sub> + † 0
ò	0	0	$\uparrow^{\alpha\beta} \left[ -\frac{1}{4} \sqrt{3} (2a_1 + a_2 + a_9) \right]$	0	$\frac{1}{4}(a_0-2a_1-a_2)$	$\Gamma_{2}^{\#1}{}_{lphaeta}$	0	0
)	0	0	0	$-\frac{3}{4}(a_0+2a_5-6a_7)$	0	$\Gamma_{2}^{\#2}$		
	0	0	$-\frac{3}{4}(2a_1+a_2-2a_5-6a_7+2a_9)$	0	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	Γ#3 2+αβ	0	0
<b>-</b>	0	$-\frac{a_0 k^2}{8}$	$(\iota_9)   0$	0	0	$h_{2}^{\#1}{}_{lphaeta}$	0	0
	$\frac{1}{4}(a_0 - 2a_1 - a_2)$	0	0	0	0	$\Gamma^{\#1}_{2^-}lphaeta\chi$	$0 0 -\frac{a_0}{2} - 2$	0 0
3/22 12 22 62 1221	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	0	0	0	0	$\Gamma_{2^-}^{\#2}lphaeta\chi$	$-\frac{a_0}{2} - 2a_1 + 2a_2$ $\Gamma_{3}^{\#1} + \frac{\alpha\beta\chi}{4} - \frac{3}{4}(a_0 - a_0)$	0

$h_{0+}^{#2} + 0$	$h_{0+}^{#1} + 0$	Γ <sub>0</sub> <sup>#4</sup> † 0	Γ <sub>0</sub> <sup>#3</sup> † 0	$\Gamma_{0+}^{#2} + 0$	\(\Gamma_{0}^{\#1} + \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Γ#1 <sub>0</sub> +	$\Delta_{0^{-}}^{#1} + 0$	$\mathcal{T}_{0+}^{#2} + 0$	$\mathcal{T}_{0+}^{*1} + 0$	
0	0	$\frac{-3a_0+2(a_5-8a_6+5a_7)}{4\sqrt{2}}$	$a_5 - 2 a_6 - a_7$	$\frac{1}{4} \left( -3 a_0 - 2 \left( a_5 + 4 a_6 - 7 a_7 \right) \right)$	0	Γ <sub>0</sub> <sup>#2</sup>	0	0	0	
0	0	$\frac{-3a_0+2(a_5-8a_6+5a_7)}{4\sqrt{2}}$	$\frac{1}{4} \left( -3 a_0 - 2 \left( a_5 + 4 a_6 - 7 a_7 \right) \right)$	$a_5 - 2 a_6 - a_7$	0	Γ <sub>0</sub> <sup>#3</sup>	0	0	0	
0	0	$\frac{1}{4} \left( -3 a_0 + 2 \left( a_5 - 8 a_6 + 5 a_7 \right) \right)$	$\frac{-3a_0+2(a_5-8a_6+5a_7)}{4\sqrt{2}}$	$\frac{-3a_0+2(a_5-8a_6+5a_7)}{4\sqrt{2}}$	0	Γ <sub>0</sub> #4	0	0	0	
0	$\frac{a_0 k^2}{4}$	0	0	0	0	h <sub>0</sub> <sup>#1</sup> /	0	0	$\frac{4}{a_0 k^2}$	
0	0	0	0	0	0	$h_{0+}^{#2}$	0	0	2 0	
0	0	0	0	0	0	Γ#1	$-\frac{2}{a_0+4a_1-4a_2}$	0	0	
	-87	A#1+°								

	$\Delta_{2}^{\#1}{}_{\alpha\beta}$	$\Delta_{2}^{\#2}{}_{lphaeta}$	$\Delta_{2}^{\#3}{}_{lphaeta}$	${\mathcal T}_{2}^{\#1}{}_{lphaeta}$	$\Delta_{2^{-} lphaeta\chi}^{\#1}$	$\Delta^{\#^2}_{2^-lphaeta\chi}$
$\Delta_{2}^{#1} \dagger^{\alpha\beta}$	$\frac{4 (2 a_1 + a_2 - 2 a_5 - 6 a_7 + 2 a_9)}{2 (2 a_1 + a_2) (a_5 + 3 a_7) + a_9^2 + a_0 (2 a_1 + a_2 - 2 a_5 - 6 a_7 + 2 a_9)}$	0	$-\frac{4 \left(2  a_{1}+a_{2}+a_{9}\right)}{\sqrt{3}  \left(2 \left(2  a_{1}+a_{2}\right) \left(a_{5}+3  a_{7}\right)+a_{9}^{2}+a_{0} \left(2  a_{1}+a_{2}-2  a_{5}-6  a_{7}+2  a_{9}\right)\right)}$	0	0	0
$\Delta_{2}^{\#2} \dagger^{\alpha\beta}$	0	$-\frac{4}{3(a_0+2a_5-6a_7)}$	0	0	0	0
$\Delta_{2}^{#3} \dagger^{\alpha\beta}$	$-\frac{4 (2 a_1+a_2+a_9)}{\sqrt{3} (2 (2 a_1+a_2) (a_5+3 a_7)+a_9^2+a_0 (2 a_1+a_2-2 a_5-6 a_7+2 a_9))}$	0	$-\frac{4 (a_0 - 2 a_1 - a_2)}{3 (2 (2 a_1 + a_2) (a_5 + 3 a_7) + a_9^2 + a_0 (2 a_1 + a_2 - 2 a_5 - 6 a_7 + 2 a_9))}$	0	0	0
${\mathcal T}_{\mathtt{2}^{+}}^{\mathtt{#1}} t^{lphaeta}$	0	0	0	$-\frac{8}{a_0 k^2}$	0	0
$\Delta_2^{\#1} \dagger^{\alpha\beta\chi}$	0	0	0	0	$\frac{4(2a_1+a_2-2a_5-6a_7+2a_9)}{2(2a_1+a_2)(a_5+3a_7)+a_9^2+a_0(2a_1+a_2-2a_5-6a_7+2a_9)}$	$-\frac{4 \left(2  a_{1}+a_{2}+a_{9}\right)}{\sqrt{3}  \left(2 \left(2  a_{1}+a_{2}\right) \left(a_{5}+3  a_{7}\right)+a_{9}^{2}+a_{0} \left(2  a_{1}+a_{2}-2  a_{5}-6  a_{7}+2  a_{9}\right)\right)}$
$\Delta_2^{\#2} \dagger^{\alpha\beta\chi}$	0	0	0	0	$-\frac{4 \left(2  a_{1}+a_{2}+a_{9}\right)}{\sqrt{3}  \left(2 \left(2  a_{1}+a_{2}\right) \left(a_{5}+3  a_{7}\right)+a_{9}^{2}+a_{0} \left(2  a_{1}+a_{2}-2  a_{5}-6  a_{7}+2  a_{9}\right)\right)}$	$-\frac{4 (a_0-2 a_1-a_2)}{3 (2 (2 a_1+a_2) (a_5+3 a_7)+a_9^2+a_0 (2 a_1+a_2-2 a_5-6 a_7+2 a_9))}$

Massive particle

Pole residue:  $\frac{1}{4c_{13}} > 0$ Polarisations: 3

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

Quadratic pole Polarisations: 2

Unitarity conditions  $a_0 < 0 \&\& a_7 > \frac{1}{10} (3 a_0 - 2 a_5 + 16 a_6) \&\& c_{13} > 0$  $- ? \overline{\text{Pole residue: } \left| -\frac{1}{a_0} > 0 \right|}$