

 $\Gamma_{1}^{\#1}{}_{lphaeta}$

 $-\frac{a_0+2a_1-3a_2}{2\sqrt{2}}$

 $\Gamma_{1+}^{\#1} + \alpha\beta = \frac{1}{4} (-a_0 - 6a_1 + 5a_2)$

 $\Gamma_{1+}^{\#3} + \alpha\beta = \frac{1}{4} (-2 a_1 - a_2 - a_9)$

 $\Gamma_{1}^{\#2}_{\alpha\beta}$

 $\frac{1}{2}$ (-2 $a_1 + a_2$)

? $\xrightarrow{k^{\mu}}$ $\stackrel{?}{\longrightarrow}$	Quadratic pole	$\left -\frac{1}{a_0} > 0 \right $
?	Polarisations:	2

 $\frac{4}{3} \left(-\frac{1}{a_0 + 4a_1 - 4a_2} + (a_0 - 4a_1 - 2a_2 - 3a_3 + 16a_6 - 4a_7 - 2a_9) \right)$

 $(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7)$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 $3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))$

 $\frac{2}{3}\sqrt{2}\left(-\frac{1}{a_0+4a_1-4a_2}+(-2a_0+8a_1+4a_2+6a_3-32a_6+8a_7+4a_9)\right)$

 $(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7)$

 $a_9^2 - a_0 (6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9)))$

 $\Gamma_{1}^{\#3}_{\alpha\beta}$

 $\frac{1}{4}$ (-2 a_1 - a_2 - a_9)

 $\frac{2a_1+a_2+a_9}{2\sqrt{2}}$

 $\frac{2a_1+a_2+a_9}{2\sqrt{2}} \quad \frac{3}{4} (a_0-4a_1-2a_2-3a_3+16a_6-4a_7-2a_9)$

?
Pole residue: $\left -\frac{1}{a_0} > 0 \right $
Polarisations: 2

 $3(a_0+4a_6)+12a_7$

Unitarity conditions
$a_0 < 0 \&\& a_2 > \frac{1}{4} (a_0 + 4 a_1) \&\& a_1 > 0$

 $\sqrt{3} (a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0 (6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))$

 $3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))$

 $\frac{2}{3}\sqrt{2}\left(-\frac{1}{a_0+4a_1-4a_2}+(-2a_0+8a_1+4a_2+6a_3-32a_6+8a_7+4a_9)\right)$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 $(3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 -$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 $a_0 (6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))))$

 $-\frac{2}{3(a_0+4a_1-4a_2)}+(8(a_0-4a_1-2a_2-3a_3+16a_6-4a_7-2a_9))/$

 $(3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) -$

 $-((4\sqrt{2}(2a_1+a_2+a_9))/$

 $\frac{1}{4} \left(-a_0 - 2 a_1 - a_2 - 2 a_3 \right) \qquad \frac{a_0 + a_3}{2 \sqrt{2}}$

 $-\frac{2a_1+a_2+a_9}{2\sqrt{6}}$

 $\frac{2a_1+a_2+a_9}{4\sqrt{3}}$

 $\frac{1}{4} \left(-2 a_1 - a_2 - a_3 \right)$

 $-\frac{2a_1+a_2+a_9}{2\sqrt{3}}$

 $\frac{2a_1 + a_2 + a_9}{2\sqrt{6}}$

 $3(a_0^2+(2a_1+a_2)(2a_1+a_2+3a_3-16a_6+4a_7)-a_9^2-a_0(6a_1+3a_2+3a_3-16a_6+4a_7+2a_9)$

 $\frac{4 \left(a_{0} - 2 \, a_{1} - a_{2}\right)}{3 \left(a_{0}^{2} + \left(2 \, a_{1} + a_{2}\right) \left(2 \, a_{1} + a_{2} + 3 \, a_{3} - 16 \, a_{6} + 4 \, a_{7}\right) - a_{9}^{2} - a_{0} \left(6 \, a_{1} + 3 \, a_{2} + 3 \, a_{3} - 16 \, a_{6} + 4 \, a_{7} + 2 \, a_{9}\right)\right)}{3 \left(a_{0}^{2} + \left(2 \, a_{1} + a_{2}\right) \left(2 \, a_{1} + a_{2} + 3 \, a_{3} - 16 \, a_{6} + 4 \, a_{7} + 2 \, a_{9}\right)\right)}$

 $(3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 -$

 $a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9))))$

 $\Gamma_{1}^{\#5}{}_{\alpha}$

 $-\frac{2a_1+a_2+a_9}{2\sqrt{6}}$

 $-\frac{2a_1+a_2+a_9}{2\sqrt{3}}$

 $\frac{1}{3}(a_0 - 4a_1 - 2a_2 - 3a_3 + 16a_6 - 4a_7 - 2a_9)$

 $\Delta_{2}^{\#1}{}_{lphaeta\chi}$

 $4(a_0-4a_1-2a_2-3a_3+16a_6-4a_7-2a_9)$

 ${\mathcal T}_{\mathtt{2}^{+}lphaeta}^{\mathtt{\#1}}$

 $-((4\sqrt{2}(2a_1+a_2+a_9))/$

 $\Gamma_{1}^{\#4}{}_{lpha}$

 $-\frac{5}{2}(a_0+4a_6-4a_7)$ $\left|\frac{1}{2}\sqrt{5}(a_0+4a_6-4a_7)\right|$

 $\left| \frac{1}{2} \sqrt{5} \left(a_0 + 4 a_6 - 4 a_7 \right) \right| - \frac{a_0}{2} - 2 a_6 + 2 a_7$

 $(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7)$

 $a_1 \, \partial_\mu \Gamma_{\chi\beta\alpha} \partial^\mu \Gamma^{\alpha\beta\chi} + a_1 \, \partial_\chi \partial_\beta h_{\alpha\mu} \, \partial^\mu \partial^\chi h^{\alpha\beta} - a_1 \, \partial_\mu \partial_\beta h_{\alpha\chi} \, \partial^\mu \partial^\chi h^{\alpha\beta}$ $\Delta_{2}^{\#2}{}_{lphaeta\chi}$

Lagrangian density	
$\frac{2}{3} a_1 \Gamma_{\alpha \chi}^{\chi} \Gamma_{\beta}^{\alpha\beta} + \frac{1}{3} a_2 \Gamma_{\alpha \chi}^{\chi} \Gamma_{\beta}^{\alpha\beta} + \frac{1}{2} a_3 \Gamma_{\alpha \chi}^{\chi} \Gamma_{\beta}^{\alpha\beta} - 2 a_6 \Gamma_{\alpha \chi}^{\chi} \Gamma_{\beta}^{\alpha\beta} +$	
$\frac{1}{3} a_9 \Gamma_{\alpha \chi}^{\chi} \Gamma_{\beta}^{\alpha\beta} - \frac{1}{4} a_0 \Gamma_{\alpha\beta\chi} \Gamma^{\alpha\beta\chi} - \frac{3}{2} a_1 \Gamma_{\alpha\beta\chi} \Gamma^{\alpha\beta\chi} - \frac{1}{4} a_2 \Gamma_{\alpha\beta\chi} \Gamma^{\alpha\beta\chi} -$	
$\frac{3}{4} a_3 \Gamma_{\alpha\beta\chi} \Gamma^{\alpha\beta\chi} + 2 a_6 \Gamma_{\alpha\beta\chi} \Gamma^{\alpha\beta\chi} + a_7 \Gamma_{\alpha\beta\chi} \Gamma^{\alpha\beta\chi} - \frac{1}{2} a_9 \Gamma_{\alpha\beta\chi} \Gamma^{\alpha\beta\chi} -$	
$\frac{1}{4} a_0 \Gamma_{\alpha \chi \beta} \Gamma^{\alpha \beta \chi} - \frac{1}{2} a_1 \Gamma_{\alpha \chi \beta} \Gamma^{\alpha \beta \chi} - \frac{3}{4} a_2 \Gamma_{\alpha \chi \beta} \Gamma^{\alpha \beta \chi} - \frac{3}{4} a_3 \Gamma_{\alpha \chi \beta} \Gamma^{\alpha \beta \chi} +$	
$2 a_6 \Gamma_{\alpha \chi \beta} \Gamma^{\alpha \beta \chi} + a_7 \Gamma_{\alpha \chi \beta} \Gamma^{\alpha \beta \chi} - \frac{1}{2} a_9 \Gamma_{\alpha \chi \beta} \Gamma^{\alpha \beta \chi} - \frac{1}{2} a_0 \Gamma^{\alpha \beta \chi} \Gamma_{\beta \alpha \chi} +$	
$\frac{1}{4} a_1 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\alpha\chi} - \frac{3}{8} a_2 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\alpha\chi} + \frac{3}{8} a_3 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\alpha\chi} - 4 a_6 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\alpha\chi} +$	
$\frac{5}{2} a_7 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\alpha\chi} - \frac{3}{2} a_0 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\chi\alpha} + \frac{1}{2} a_1 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\chi\alpha} + \frac{5}{4} a_2 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\chi\alpha} +$	
$\frac{3}{4} a_3 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\chi\alpha} - 8 a_6 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\chi\alpha} + 5 a_7 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\chi\alpha} + \frac{1}{2} a_9 \Gamma^{\alpha\beta\chi} \Gamma_{\beta\chi\alpha} +$	
$\frac{1}{2} a_0 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} - a_1 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} - \frac{1}{2} a_2 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} - \frac{1}{2} a_3 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} +$	
$4 a_6 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} - 2 a_7 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} - \frac{1}{2} a_9 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} + \frac{1}{2} a_0 \Gamma_{\alpha}^{\alpha\beta} \Gamma_{\beta\chi}^{\chi} -$	
$\frac{1}{3} a_1 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\chi}_{\beta \chi} - \frac{1}{6} a_2 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\chi}_{\beta \chi} - \frac{1}{2} a_3 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\chi}_{\beta \chi} + 4 a_6 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\chi}_{\beta \chi} -$	
$2 a_7 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\chi}_{\beta \chi} - \frac{1}{6} a_9 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\chi}_{\beta \chi} - \frac{1}{2} a_0 \Gamma^{\alpha\beta\chi} \Gamma_{\chi\beta\alpha} + \frac{5}{4} a_1 \Gamma^{\alpha\beta\chi} \Gamma_{\chi\beta\alpha} +$	
$\frac{1}{8} a_2 \Gamma^{\alpha\beta\chi} \Gamma_{\chi\beta\alpha} + \frac{3}{8} a_3 \Gamma^{\alpha\beta\chi} \Gamma_{\chi\beta\alpha} - 4 a_6 \Gamma^{\alpha\beta\chi} \Gamma_{\chi\beta\alpha} + \frac{5}{2} a_7 \Gamma^{\alpha\beta\chi} \Gamma_{\chi\beta\alpha} +$	
$\frac{1}{2} a_9 \Gamma^{\alpha\beta\chi} \Gamma_{\chi\beta\alpha} + \frac{1}{2} a_0 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\beta\chi} + \frac{1}{3} a_1 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\beta\chi} + \frac{1}{6} a_2 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\beta\chi} +$	
$\frac{1}{2} a_3 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\beta\chi} - a_7 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\beta\chi} + \frac{1}{6} a_9 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\beta\chi} - \frac{1}{2} a_7 \Gamma^{\alpha\beta}_{\alpha} \Gamma^{\chi}_{\beta\chi} +$	
$\frac{1}{3} a_1 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\chi\beta} + \frac{1}{6} a_2 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\chi\beta} - \frac{1}{2} a_7 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\chi\beta} + \frac{1}{6} a_9 \Gamma^{\alpha}_{\alpha}^{\beta} \Gamma^{\chi}_{\chi\beta} +$	
$h^{\alpha\beta} \mathcal{T}_{\alpha\beta} + \Gamma^{\alpha\beta\chi} \Delta_{\alpha\beta\chi} - \frac{1}{2} a_0 \Gamma^{\alpha\beta\chi} \partial_{\beta} h_{\alpha\chi} - \frac{1}{4} a_0 \Gamma^{\alpha}_{\alpha}{}^{\beta} \partial_{\beta} h^{\chi}_{\chi} +$	
$\frac{1}{4} a_0 \Gamma^{\alpha\beta}_{\alpha} \partial_{\beta} h^{\chi}_{\chi} - \frac{1}{4} a_0 h^{\chi}_{\chi} \partial_{\beta} \Gamma^{\alpha}_{\alpha}^{\beta} + \frac{1}{4} a_0 h^{\chi}_{\chi} \partial_{\beta} \Gamma^{\alpha\beta}_{\alpha} - \frac{1}{2} a_0 h_{\alpha\chi} \partial_{\beta} \Gamma^{\alpha\beta\chi} +$	
$\frac{1}{4} a_0 h^{\alpha\beta} \partial_{\beta} \partial_{\alpha} h^{\chi}_{\chi} - \frac{1}{8} a_0 \partial_{\beta} h^{\chi}_{\chi} \partial^{\beta} h^{\alpha}_{\alpha} + \frac{1}{2} a_0 \Gamma^{\alpha}_{\alpha}{}^{\beta} \partial_{\chi} h_{\beta}{}^{\chi} + \frac{1}{4} a_0 \partial^{\beta} h^{\alpha}_{\alpha} \partial_{\chi} h_{\beta}{}^{\chi} -$	
$\frac{1}{2} a_0 h^{\alpha\beta} \partial_{\chi} \partial_{\beta} h_{\alpha}^{\ \chi} + \frac{1}{4} a_0 h^{\alpha}_{\ \alpha} \partial_{\chi} \partial_{\beta} h^{\beta\chi} + \frac{1}{4} a_0 h^{\alpha\beta} \partial_{\chi} \partial^{\chi} h_{\alpha\beta} - \frac{1}{4} a_0 h^{\alpha}_{\ \alpha} \partial_{\chi} \partial^{\chi} h^{\beta}_{\ \beta} -$	
$\frac{1}{4} a_0 \partial_{\beta} h_{\alpha \chi} \partial^{\chi} h^{\alpha \beta} + \frac{1}{8} a_0 \partial_{\chi} h_{\alpha \beta} \partial^{\chi} h^{\alpha \beta} + \frac{1}{2} a_0 h_{\beta \chi} \partial^{\chi} \Gamma^{\alpha}_{\alpha}{}^{\beta} + 2 a_1 \partial_{\alpha} \Gamma_{\beta \chi \mu} \partial^{\mu} \Gamma^{\alpha \beta \chi} -$	
$2 a_1 \partial_{\alpha} \Gamma_{\beta\mu\chi} \partial^{\mu} \Gamma^{\alpha\beta\chi} - 2 a_1 \partial_{\alpha} \Gamma_{\chi\beta\mu} \partial^{\mu} \Gamma^{\alpha\beta\chi} + 2 a_1 \partial_{\alpha} \Gamma_{\chi\mu\beta} \partial^{\mu} \Gamma^{\alpha\beta\chi} +$	
$a_1 \partial_{\alpha} \Gamma_{\mu\beta\chi} \partial^{\mu} \Gamma^{\alpha\beta\chi} - a_1 \partial_{\alpha} \Gamma_{\mu\chi\beta} \partial^{\mu} \Gamma^{\alpha\beta\chi} - 2 a_1 \partial_{\beta} \Gamma_{\alpha\chi\mu} \partial^{\mu} \Gamma^{\alpha\beta\chi} + a_1 \partial_{\beta} \Gamma_{\alpha\mu\chi} \partial^{\mu} \Gamma^{\alpha\beta\chi} - a_1 \partial_{\alpha} \Gamma_{\alpha\mu\chi} \partial^{\mu} \Gamma^{\alpha\gamma} - a_1 \partial_{\alpha} \Gamma^{\alpha\gamma$	
$a_1 \partial_{\beta} \Gamma_{\chi\mu\alpha} \partial^{\mu} \Gamma^{\alpha\beta\chi} + a_1 \partial_{\chi} \Gamma_{\alpha\beta\mu} \partial^{\mu} \Gamma^{\alpha\beta\chi} - a_1 \partial_{\chi} \Gamma_{\beta\alpha\mu} \partial^{\mu} \Gamma^{\alpha\beta\chi} + 2 a_1 \partial_{\chi} \Gamma_{\beta\mu\alpha} \partial^{\mu} \Gamma^{\alpha\beta\chi} -$	
$a_1 \partial_\mu \Gamma_{\alpha\beta\chi} \partial^\mu \Gamma^{\alpha\beta\chi} + a_1 \partial_\mu \Gamma_{\alpha\chi\beta} \partial^\mu \Gamma^{\alpha\beta\chi} + a_1 \partial_\mu \Gamma_{\beta\alpha\chi} \partial^\mu \Gamma^{\alpha\beta\chi} - 2 a_1 \partial_\mu \Gamma_{\beta\chi\alpha} \partial^\mu \Gamma^{\alpha\beta\chi} +$	

 $(4\sqrt{2}(3a_0^2-4a_1^2-a_2^2-3a_3(3a_3+4(-4a_6+a_7))-$

 $(3(2a_0+2a_1+a_2+3a_3)$

 $(8(2a_1+a_2+a_9))/$

 $-((4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)))/$

 $6a_0(2a_1+a_2+a_3-8a_6+2a_7+a_9)))/$

 $(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7)$

 $\frac{4}{3(2a_0+2a_1+a_2+3a_3)} + (8(a_0-4a_1-2a_2-3a_3+16a_6-4a_7-2a_9))/$

 $(3\sqrt{3}(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) -$

 $(3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 + a_9^2)$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 $a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9))))$

 $(3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) -$

 $\frac{4}{3} \left(-\frac{2}{2a_0+2a_1+a_2+3a_3} + (a_0-4a_1-2a_2-3a_3+16a_6-4a_7-2a_9) \right)$

 $6a_0(2a_1+a_2+a_3-8a_6+2a_7+a_9)))/$

 $(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7)$

 $4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)$

 $\overline{3({a_0}^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))}$

 $(3\sqrt{3}(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) -$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9))))

 $(4\sqrt{2}(3a_0^2-4a_1^2-a_2^2-3a_3(3a_3+4(-4a_6+a_7))-$

 $(3(2a_0 + 2a_1 + a_2 + 3a_3)$

 $-((4(2a_1+a_2+a_9))/$

 $\Gamma_{1^{-}\alpha}^{\#6}$

 $\frac{2a_1+a_2+a_9}{4\sqrt{3}}$

 $\frac{2a_1 + a_2 + a_9}{2\sqrt{6}}$

 $\frac{-a_0 + 4a_1 + 2a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9}{2\sqrt{2}}$

 $\frac{1}{1} (a_0 - 4a_1 - 2a_2 - 3a_3 + 16a_6 - 4a_7 - 2a_9) \quad 0$

 $a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9)$ $\sqrt{3}(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))$

 $\sqrt{3} (a_0^2 + (2a_1 + a_2) (2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0 (6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))$ $3 (a_0^2 + (2a_1 + a_2) (2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0 (6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))$

 $(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7)$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 $6a_3a_9-a_9^2-2a_2(3a_3+a_9)-4a_1(a_2+3a_3+a_9)-$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 $6a_3a_9-a_9^2-2a_2(3a_3+a_9)-4a_1(a_2+3a_3+a_9)$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))

 $18(a_0+4a_6-4a_7)$

 $\boxed{\frac{18(a_0+4a_6-4a_7)}{-18(a_0+4a_6)+72a_7}} -18(a_0+4a_6)+72a_7$

 $18(a_0+4a_6-4a_7)$

$\Delta_{0}^{#1}$ †	T ₀ ^{#2} †	$\mathcal{T}_{0^{+}}^{#1}$ †	$\Delta_{0^{+4}}^{#4}$ †	$\Delta_{0^{+}}^{#3}$ †	$\Delta_{0^{+}}^{#2}$ †	$\Delta_{0}^{#1}$ †	
0	0	0	0	0	0	$-\frac{4}{2a_0+2a_1+a_2+3a_3}$	$\Delta_0^{\#1}$
0	0	0	0	$\frac{1}{6a_0 + 24a_6 - 24a_7}$	$\frac{1}{-6 (a_0 + 4 a_6) + 24 a_7}$	0	$\Delta_0^{\#2}$
0	0	0	0	$\frac{1}{-6(a_0+4a_6)+24a_7}$	$\frac{1}{6(a_0 + 4a_6 - 4a_7)}$	0	$\Delta_0^{#3}$
0	0	0	0	0	0	0	$\Delta_{0^{+4}}^{\#4}$
0	0	$\frac{4}{a_0 k^2}$	0	0	0	0	$\Delta_{0^{+}}^{\#4} \ \mathcal{T}_{0^{+}}^{\#1} \ \mathcal{T}_{0^{+}}^{\#2}$
0	0	0	0	0	0	0	${\cal T}_{0^+}^{\#2}$
$-\frac{2}{a_0+4(a_1-a_2+3a_1k^2)}$	0	0	0	0	0	0	$\Delta_{0^-}^{\#1}$

 $4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9)$

 $3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))$

 $(3\sqrt{3}(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) -$

 $a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9)))$

 $(8(2a_1+a_2+a_9))/$

 $-((4(2a_1+a_2+a_9))/$

 $-((4\sqrt{\frac{2}{3}}(2a_1+a_2+a_9))/$

 $\frac{9(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))}{9(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 - a_0(6a_1 + 3a_2 + 3a_3 - 16a_6 + 4a_7 + 2a_9))}$

 $\frac{4\sqrt{2}(-a_0+2a_1+a_2)}{9(a_0^2+(2a_1+a_2)(2a_1+a_2+3a_3-16a_6+4a_7)-a_9^2-a_0(6a_1+3a_2+3a_3-16a_6+4a_7+2a_9))} = \frac{4(a_0-2a_1-a_2)}{9(a_0^2+(2a_1+a_2)(2a_1+a_2+3a_3-16a_6+4a_7)-a_9^2-a_0(6a_1+3a_2+3a_3-16a_6+4a_7+2a_9))}$

 $(3\sqrt{3}(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) -$

 $(3(a_0^2 + (2a_1 + a_2)(2a_1 + a_2 + 3a_3 - 16a_6 + 4a_7) - a_9^2 -$

 $4\sqrt{2}(-a_0+2a_1+a_2)$

 $a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9))))$

 a_9^2 - a_0 (6 a_1 + 3 a_2 + 3 a_3 - 16 a_6 + 4 a_7 + 2 a_9))))

	<u>+</u>	+2+	+11	+ 4 +	+3	+2	+1	
$\Delta_{0+}^{#1}$	0	0	0	0	0	0	$\frac{1}{4} \left(-2a_0 - 2a_1 - a_2 - 3a_3 \right)$	Γ#1 0+
$\Delta_{0+}^{#2}$ $\Delta_{0+}^{#3}$	0	0	0	0	$\frac{3}{2}(a_0+4a_6-4a_7)$	$-\frac{3}{2}(a_0+4a_6-4a_7)$	0	Γ ₀ ^{#2}
$\Delta_{0+}^{#4} \mathcal{T}_{0+}^{#1} \mathcal{T}_{0+}^{#2}$	0	0	0	0	$-\frac{3}{2}(a_0+4a_6-4a_7)$	$\frac{3}{2}(a_0 + 4a_6 - 4a_7)$	0	Γ ₀ ^{#3}
+2	0	0	0	0	0	0	0	$\Gamma_{0^{+}}^{#4}$
_	0	0	$\frac{a_0 k^2}{4}$	0	0	0	0	$h_{0+}^{\#1}$
$\Delta_{0}^{#1}$	0	0	0	0	0	0	0	$h_{0+}^{#2}$
	$-\frac{a_0}{2}$ - 2 a_1 + 2 a_2 - 6 a_1 k^2	0	0	0	0	0	0	$\Gamma_{0}^{#1}$

	,2							
Total #:	$\Delta_{1}^{\#4lpha}$.	$\Delta_{1}^{\#6}\alpha$	$\mathcal{T}_{1}^{#1\alpha}$	Δ ₀ ^{#3} +	$\Delta_{0+}^{\#4} == 0$	$T_{0+}^{#2} == 0$	50(3	Sour
#:	$^{\prime} + \Delta_{1^{-}}^{\#3\alpha} == 0$	$^{\prime} + \Delta_{1}^{\#5\alpha} == 0$	^α == 0	$\Delta_{0+}^{#3} + 3 \Delta_{0+}^{#2} == 0$:= 0	== 0	SO(3) irreps	Source constraints
12	3	3	3	1	1	1	#	S

Γ#1 Γ0+1 Γ0+2 Γ0+3 Γ0+3 Γ0+4 Γ0+4 Γ0+1 Γ0-1

	$\Gamma_2^{\#1}_{lpha eta}$	$\Gamma^{\#2}_{2}{}^{+}{}_{lphaeta}$	Γ ₂ ^{#3} _{αβ}	$h_{2}^{\#1}_{lphaeta}$	$\Gamma_{2}^{\#1}_{ \alpha\beta\chi}$	Γ ₂ - _{αβχ}
$\Gamma_{2}^{\#1} \dagger^{\alpha\beta}$	$\frac{1}{4} (a_0 - 2 a_1 - a_2)$	0	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	0	0	0
$\Gamma_{2}^{\#2} \dagger^{\alpha\beta}$	0	$-3(a_0+4a_6-4a_7)$	0	0	0	0
$\Gamma_{2}^{#3} \dagger^{\alpha\beta}$	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	0	$\frac{3}{4} (a_0 - 4 a_1 - 2 a_2 - 3 a_3 + 16 a_6 - 4 a_7 - 2 a_9)$	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	$\frac{1}{4} (a_0 - 2 a_1 - a_2)$	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$
$\Gamma_2^{\#2} \dagger^{\alpha\beta\chi}$	0	0	0	0	$-\frac{1}{4}\sqrt{3}(2a_1+a_2+a_9)$	$\frac{3}{4}$ (a_0 - 4 a_1 - 2 a_2 - 3 a_3 + 16 a_6 - 4 a_7 - 2 a_9