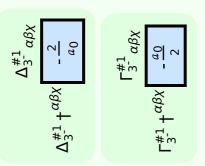
	$\Delta_{2}^{\#1}{}_{lphaeta}$	$\Delta_{2}^{\#2}{}_{\alpha\beta}$	$\Delta_{2}^{\#3}_{\alpha\beta}$	$\mathcal{T}^{\#1}_{2^+ \alpha \beta}$	$\Delta_{2}^{\#1}{}_{\alpha\beta\chi}$	$\Delta_{2}^{\#2}_{\alpha\beta\chi}$
$\Delta_{2}^{\#1} \dagger^{lphaeta}$	$\frac{4}{a_0}$	0	0	0	0	0
$\Delta_{2}^{\#2} \dagger^{\alpha\beta}$	0	$-\frac{2}{a_0}$	0	0	0	0
$\Delta_{2}^{#3} \dagger^{\alpha\beta}$	0	0	$\frac{4}{a_0}$	0	0	0
${\mathcal T}_2^{\sharp 1} \dagger^{lphaeta}$	0	0	0	$-\frac{8}{a_0 k^2}$	0	0
$\Delta_2^{#1} \dagger^{\alpha\beta\chi}$	0	0	0	0	$\frac{4}{a_0}$	0
$\Delta_2^{#2}$ † $^{\alpha\beta\chi}$	0	0	0	0	0	$\frac{4}{a_0}$

	$\Gamma_{2}^{\#1}{}_{\alpha\beta}$	$\Gamma_{2}^{\#2}{}_{\alpha\beta}$	$\Gamma_{2}^{\#3}{}_{\alpha\beta}$	$h_{2}^{\#1}{}_{\alpha\beta}$	$\Gamma_{2}^{\#1}_{\alpha\beta\chi}$	$\Gamma_{2}^{\#2}_{\alpha\beta\chi}$
$\Gamma_{2}^{#1} \dagger^{\alpha\beta}$	<u>a<sub>0</sub></u> 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	<u>a<sub>0</sub></u> 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	<u>a<sub>0</sub></u> 4	0
$\Gamma_2^{\#2} \dagger^{\alpha\beta\chi}$	0	0	0	0	0	<u>a<sub>0</sub></u> 4

${\mathcal T}_{1^{\bar{-}}}^{\#1}{}_{\alpha}$	0	0	0	0	0	0	0	0	0	0
$\Delta_{1^{\bar{-}}\alpha}^{\#6}$	0	0	0	0	0	$-\frac{1}{6a_0}$	$-\frac{\sqrt{5}}{6a_0}$	$-\frac{7}{3\sqrt{2}a_0}$	3 4 0	0
$\Delta_{1}^{\#5}{}_{\alpha}$	0	0	0	0	0	$-\frac{1}{6\sqrt{2}}a_0$	$-\frac{\sqrt{\frac{5}{2}}}{6a_0}$	$\frac{17}{6a_0}$	$-\frac{7}{3\sqrt{2}}a_0$	0
$\Delta_{1^{^{-}}\alpha}^{\#4}$	0	0	0	0	0	$\frac{5\sqrt{5}}{12a_0}$	$\frac{1}{12a_0}$	$-\frac{\sqrt{\frac{5}{2}}}{6a_0}$	$-\frac{\sqrt{5}}{6a_0}$	0
$\Delta_{1^{\bar{-}}\alpha}^{\#3}$	0	0	0	0	0	$-\frac{19}{12 a_0}$	$\frac{5\sqrt{5}}{12a_0}$	$-\frac{1}{6\sqrt{2}a_0}$	$-\frac{1}{6a_0}$	0
$\Delta_{1^{\bar{-}}}^{\#2}\alpha$	0	0	0	$\frac{2\sqrt{2}}{a_0}$	$\frac{2}{a_0}$	0	0	0	0	0
$\Delta_{1}^{\#1}{}_{\alpha}$	0	0	0	0	$\frac{2\sqrt{2}}{a_0}$	0	0	0	0	0
$\Delta_{1}^{\#3}{}_{\alpha\beta}$	0	0	$\frac{4}{a_0}$	0	0	0	0	0	0	0
$\Delta_1^{\#2}_+ \alpha \beta$	$-\frac{2\sqrt{2}}{a_0}$	$\frac{2}{a_0}$	0	0	0	0	0	0	0	0
$\Delta_{1}^{\#1}_{+}_{\alpha\beta}$	0	$-\frac{2\sqrt{2}}{a_0}$	0	0	0	0	0	0	0	0
	$\Delta_1^{\#_1} +^{\alpha\beta}$	$\Delta_{1}^{#2} + \alpha \beta$	$\Delta_{1}^{#3} + ^{\alpha \beta}$	$\Delta_{1}^{\#1} +^{\alpha}$	$\Delta_{1}^{#2} +^{\alpha}$	$\Delta_{1}^{#3} +^{\alpha}$	$\Delta_{1^{-}}^{\#4} \dagger^{\alpha}$	$\Delta_{1}^{\#5} \dotplus^{\alpha}$	$\Delta_{1}^{\#6} +^{\alpha}$	$\mathcal{T}_{1}^{\#1} +^{lpha}$



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

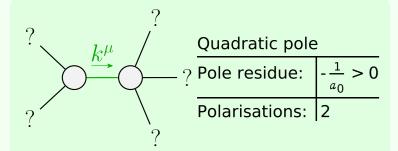
Added source term:  $h^{\alpha\beta} \mathcal{T}_{\alpha\beta} + \Gamma^{\alpha\beta\chi} \Delta_{\alpha\beta\chi}$ 

_	$\Gamma_0^{\#1}$	$\Gamma_{0}^{\#2}$	Γ <sub>0</sub> <sup>#3</sup>	$\Gamma_{0}^{\#4}$	$h_{0}^{\#1}$	$h_0^{\#2}$	Γ <sub>0</sub> -1
$\Gamma_{0}^{\#1}$ †	- <u>a_0</u> 2	0	0	0	0	0	0
Γ <sub>0</sub> <sup>#2</sup> †	0	0	<u>a<sub>0</sub></u> 2	$-\frac{a_0}{2\sqrt{2}}$	0	0	0
Γ <sub>0</sub> <sup>#3</sup> †	0	<u>a<sub>0</sub></u> 2	0	$-\frac{a_0}{2\sqrt{2}}$	0	0	0
Γ <sub>0</sub> <sup>#4</sup> †	0	$-\frac{a_0}{2\sqrt{2}}$	$-\frac{a_0}{2\sqrt{2}}$	<u>a<sub>0</sub></u> 2	0	0	0
$h_{0}^{\#1}$ †	0	0	0	0	$\frac{a_0 k^2}{4}$	0	0
$h_{0}^{\#2}$ †	0	0	0	0	0	0	0
Γ <sub>0</sub> <sup>#1</sup> †	0	0	0	0	0	0	$-\frac{a_0}{2}$

	$\Gamma_{1}^{\#1}{}_{\alpha\beta}$	$\Gamma_{1}^{\#2}{}_{\alpha\beta}$	$\Gamma_{1}^{\#3}{}_{\alpha\beta}$	Γ <sub>1</sub> - α	Γ <sub>1</sub> - α	Γ <sub>1</sub> -α	Γ <sub>1</sub> - α	Γ <sub>1</sub> - α	Γ <sub>1</sub> -α	$h_{1}^{\#1}{}_{\alpha}$
$\Gamma_{1}^{#1} \dagger^{\alpha\beta}$	$-\frac{a_0}{4}$	$-\frac{a_0}{2\sqrt{2}}$	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	<u>a<sub>0</sub></u> 4	0	0	0	0	0	0	0
$\Gamma_{1}^{#1}$ † $^{\alpha}$	0	0	0	$-\frac{a_0}{4}$	$\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0
$\Gamma_{1}^{\#2} \uparrow^{\alpha}$	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	- <u>ao</u> 3	$\frac{\sqrt{5} \ a_0}{6}$	$-\frac{a_0}{6\sqrt{2}}$	<u>a 0</u> 6	0
$\Gamma_{1}^{\#4} + \alpha$	0	0	0	0	0	$\frac{\sqrt{5} \ a_0}{6}$	<u>a<sub>0</sub></u> 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	$-\frac{a_0}{6\sqrt{2}}$	$-\frac{1}{6}\sqrt{\frac{5}{2}}a_0$	<u>a<sub>0</sub></u> 3	$\frac{a_0}{6\sqrt{2}}$	0
$\Gamma_{1}^{\#6} \uparrow^{\alpha}$	0	0	0	0	0	- <u>a o</u> 6	$-\frac{\sqrt{5} a_0}{6}$	$\frac{a_0}{6\sqrt{2}}$	5 <i>a</i> <sub>0</sub> 12	0
$h_1^{\#1} + \alpha$	0	0	0	0	0	0	0	0	0	0

$\Delta_{0^{\text{-}}}^{\#1}$	0	0	0	0	0	0	$-\frac{2}{a_0}$
$\mathcal{T}_{0}^{\#2}$	0	0	0	0	0	0	0
$\mathcal{T}_{0}^{\#1}$	0	0	0	0	$\frac{4}{a_0 k^2}$	0	0
$\Delta_{0+}^{\#4}$	0	$-\frac{1}{2\sqrt{2}a_0}$	$-\frac{1}{2\sqrt{2}a_0}$	$\frac{1}{2a_0}$	0	0	0
$\Delta_{0}^{\#3}$	0	4 a 0	$-\frac{3}{4a_0}$	$-\frac{1}{2\sqrt{2}a_0}$	0	0	0
$\Delta_0^{\#2}$	0	$-\frac{3}{4 a_0}$	$\frac{5}{4a_0}$	$-\frac{1}{2\sqrt{2}a_0}$	0	0	0
$\Delta_0^{\#1}$	$-\frac{2}{a_0}$	0	0	0	0	0	0
	$\Delta_{0}^{\#1} +$	$\Delta_{0}^{#2}$ †	$\Delta_{0}^{#3}$ †	$\Delta_{0}^{#4}$ †	${\mathcal T}_{0}^{\#1}$ †	${\cal T}_{0}^{\#2}  \dagger$	$\Delta_{0^{\text{-}}}^{\#1} \uparrow$

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



 $\frac{\text{Unitarity conditions}}{a_0 < 0}$ 

(No massive particles)